DECEMBER 1, 1945

Railway Age

Founded in 1856

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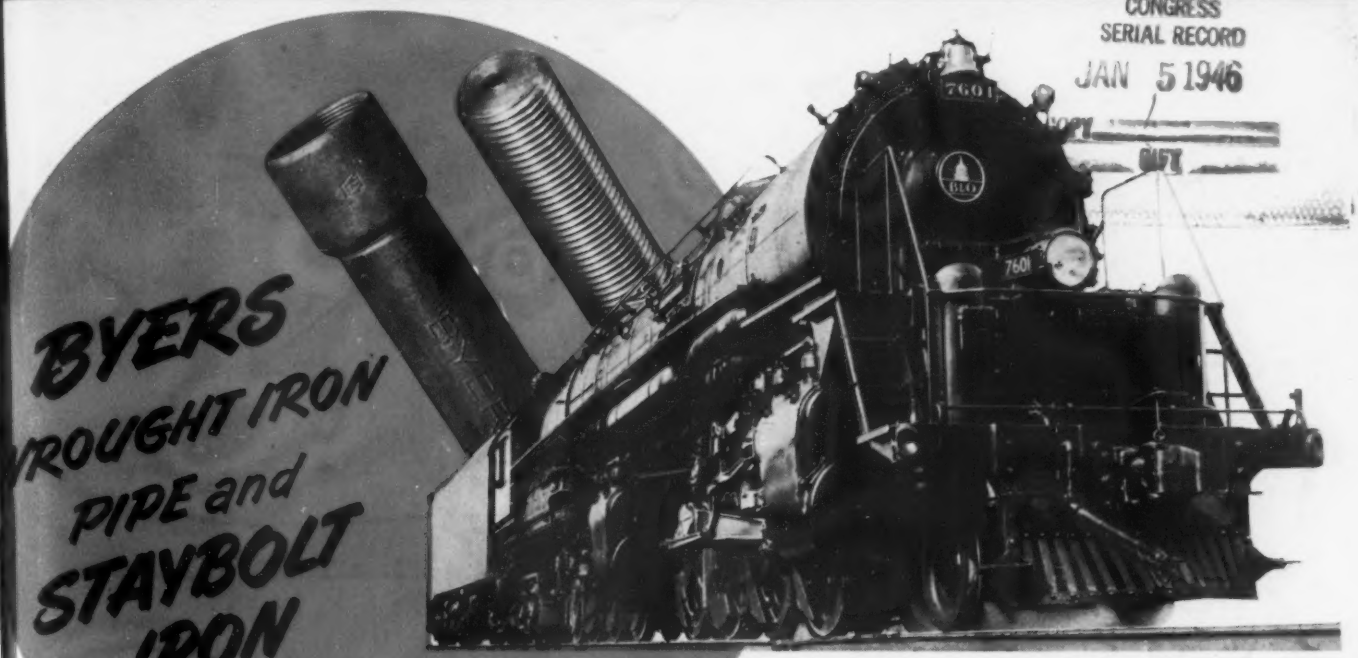

are serving the B&O on new 2-8-8-2's

The Baltimore and Ohio Railroad recently increased its fleet of Baldwin-built 2-8-8-2's, which are among the largest and most powerful locomotives on the eastern rails. In addition to using wrought iron for the locomotive piping, staybolts of Byers Wrought Iron were used in some of the latest of the locomotives.

This same sound practice is being followed by dozens of other leading railroads. It is significant that during a period when locomotive weight, size, power and availability requirements have steadily increased, the use of wrought iron has steadily increased. The reason is, of course, that the unique service qualities of wrought iron fit it to meet the increased severity of service.

Byers Wrought Iron pipe is readily formed. Bending operations do not alter its character, and it is unusually resistive to corrosion. Byers Staybolt Iron is uniform in composition and dimension, can be easily drilled, threaded and headed, and resists the elevated firebox temperatures, the cinder abrasion, and the high stresses that staybolts must endure. Both pipe and staybolt iron have one extremely important quality in common . . . their ability to stand up under vibration and shock that would cause speedy fatigue-failure of ordinary materials. This all-important feature is the direct result of the unique nature of wrought iron.

Tiny fibers of glass-like silicate slag are threaded through the main body of high-purity iron. These fibers halt and diffuse corrosive attack, discouraging pitting and penetration. The structure of the material might be compared to that of a stranded wire cable, which accounts for the fatigue-resisting qualities.

Wrought iron is being currently used for almost all locomotive piping applications. Over 70 roads have utilized Byers Staybolt Iron. The use of these materials offers a real opportunity for extra savings and service that no one should overlook.

Our General Catalog gives full dimension information on all Byers products, and is a handy book to have on file. May we send you a copy?

A. M. Byers Co., Pittsburgh, Pa. Established 1864. Boston, New York, Philadelphia, Washington, Chicago, St. Louis, Houston, Seattle, San Francisco.

BYERS

GENUINE WROUGHT IRON

TUBULAR AND HOT ROLLED PRODUCTS

ELECTRIC FURNACE ALLOY STEELS · OPEN HEARTH ALLOY STEELS
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CORROSION COSTS YOU MORE THAN WROUGHT

PORTER Diesel-Electric SWITCHERS

80-Ton PORTER Diesel-Electric Switcher

Custom Built POWER!

You can order a PORTER Diesel-Electric Switcher with the assurance that it will be engineered, designed and built to fit the requirements of your own particular switching or hauling job. An expert knowledge of switching problems accumulated over a period of 78 years enables PORTER Engineers to design switching power that will give you the utmost in service at the lowest cost for operation and maintenance. Let us analyze your switching requirements and recommend the type of unit best fitted for the job. Such an analysis may reveal possibilities for substantial savings.

PORTER "Better Built" Equipment
Established 1866

"CUSTOM-BUILT POWER"
This 20min kodachrome sound film showing the building of a PORTER Diesel-Electric Switching Locomotive is available for exhibition at clubs, meetings, etc. Applications for booking may be addressed to the Advertising Dept.

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PITTSBURGH 22, PENNSYLVANIA
Factories: Pittsburgh, Pa. • Blairsville, Pa. • McKeesport, Pa.
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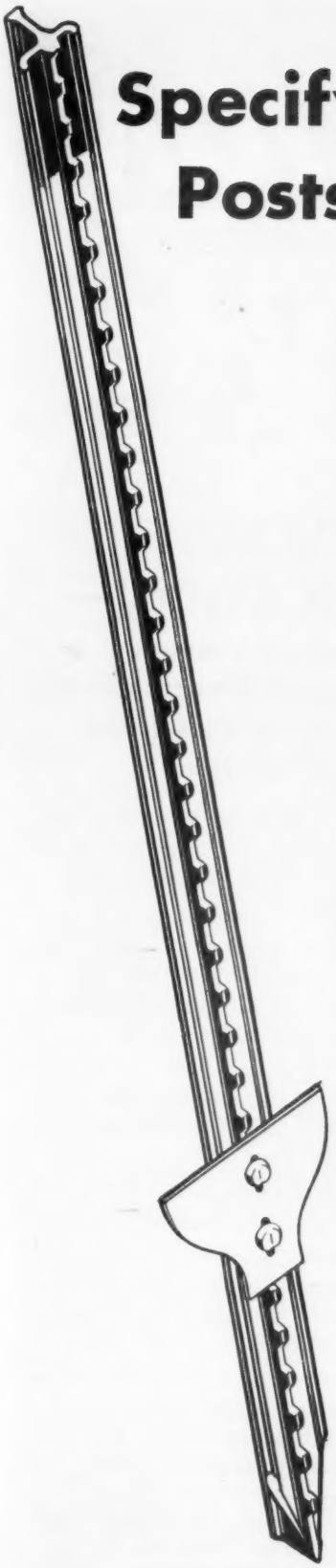

Specify **Red Top** Steel Fence Posts for Low Cost Protection

Red Top Fence Posts, made by Inland, have many important advantages for railway right-of-way protection. They are strong, straight, and resilient. They keep fence in live tension, which is so essential to withstand the strains and twists of fencing by livestock.

It is easy to drive 200 **Red Top** Fence Posts in a day. Simply line up a post and drive it straight and rigid with a few blows of the driver. They penetrate hard, dry ground or frost, readily. Once set, they defy weather and fire.

In addition to the efficiency of new **Red Top** Steel Fence Post right-of-way protection, it is real economy to replace rotted, burned and broken wood posts with **Red Top** Steel Fence Posts. Such a plan gradually works toward an all steel fence with increased life and minimum yearly expense for labor and material.

Red Top Steel Posts are easy to handle, pile and store, requiring only a fraction of the space occupied by the same number of wooden posts. Further information will be gladly furnished upon request.

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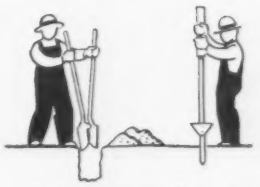
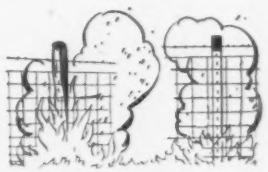
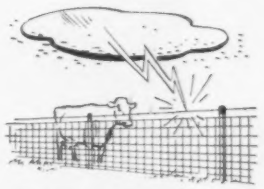


***Red Top** Fence Posts save the time and cost of digging post holes.*

***Red Top** Fence Posts cut replacement cost. They do not rot.*



***Red Top** Fence Posts cannot burn. Weeds can be burned right up to the fence.*



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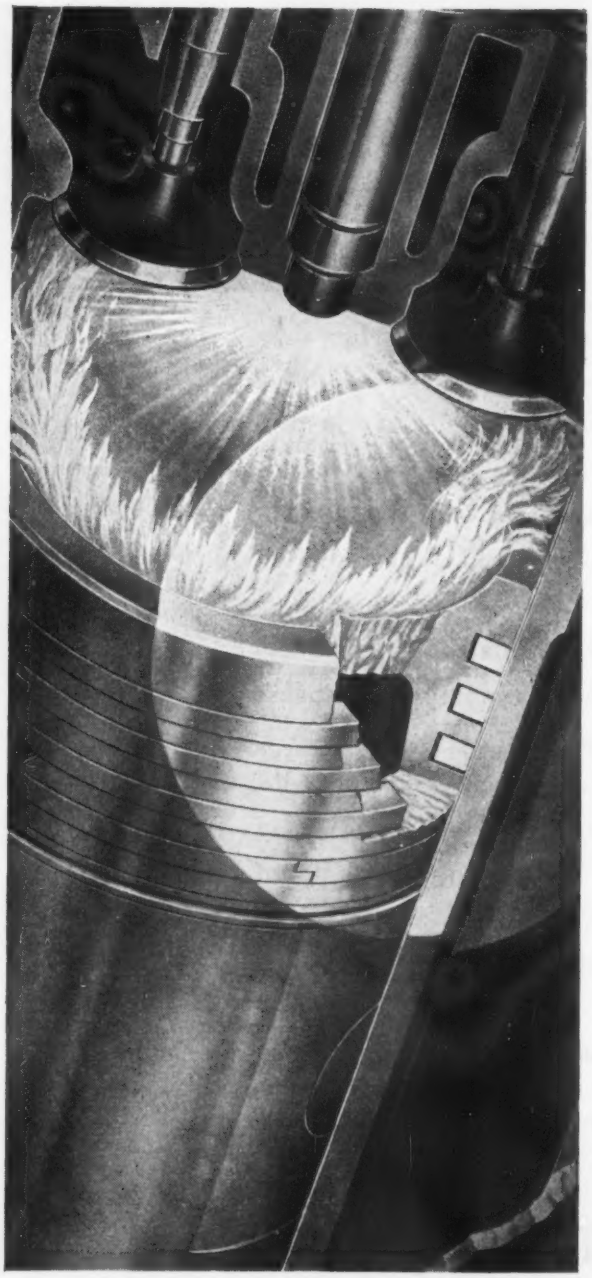

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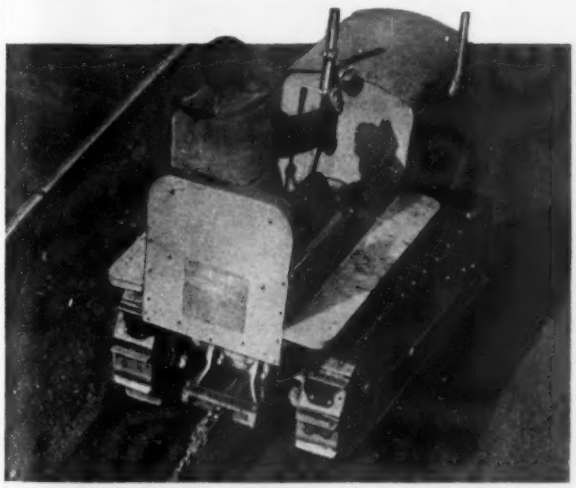
To help you get more continuous, trouble-free operation from maintenance-of-way equipment, Socony-Vacuum has worked closely with builders...has developed special oils and greases which meet the exact needs of all tools and their motors.

For example, special Socony-Vacuum oils resist the washing action of water in air tools, like those shown above...protect their moving parts against wear and rusting. Other quality lubricants keep mobile air compressors at peak efficiency.



TRACTORS. Special Socony-Vacuum oils give maximum protection against wear...help keep pistons, rings, valves and bearings *clean*...engines operating at full power. Special greases seal out grit, dirt and water from all chassis fittings.

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GARGOYLE

Railroad Lubricants

IT PAYS TO KNOW WHAT'S NEW IN LUBRICATION

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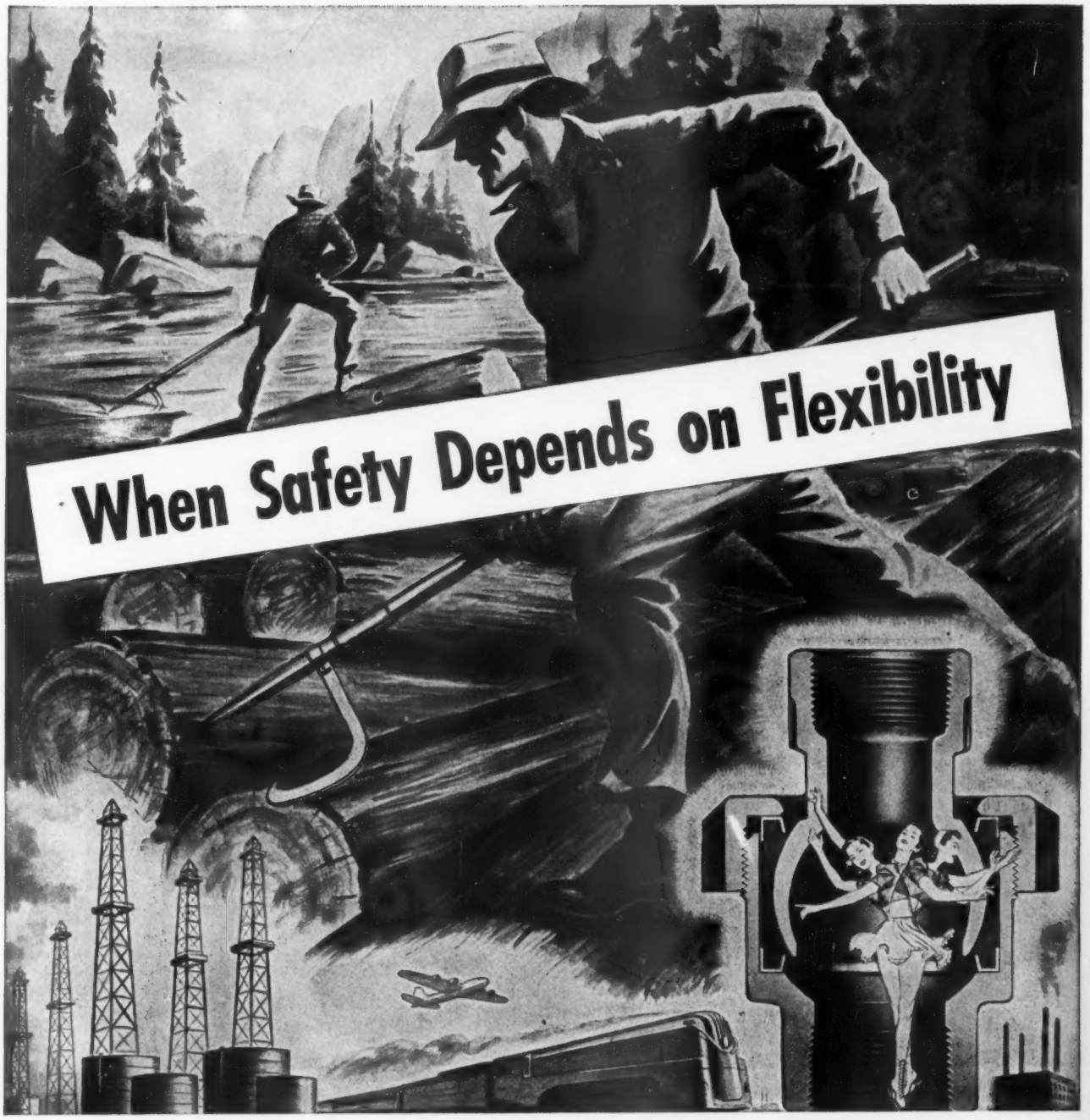
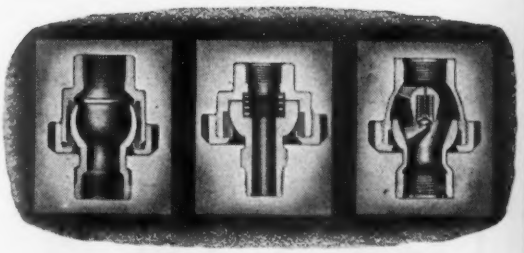


Quick responsive movement is the natural safeguard against sudden strains and shocks. Barco Flexible Joints are designed to provide compensation for movement always present in fluid-conveyor systems...counteracting destructive vibration, expansion and contraction. Today, as for the past 30 years, engineers and designers throughout industry and transportation look to Barco for solution to their flexible joint problems. Write to Barco Manufacturing Co., Not Inc., 1800 Winnemac Ave., Chicago 40, Illinois.



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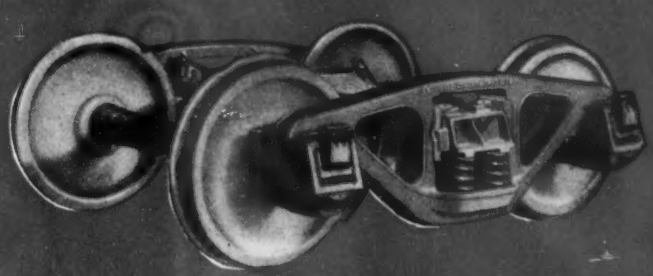

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BEST TODAY—STILL BETTER TOMORROW

Firestone

*TRADE MARK

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CORRUGATED TRANSITE *for interiors too!*

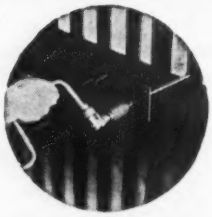
Corrugated Transite is durable... needs no maintenance. *And it's low in cost!*

LONG USED on the exterior of railroad buildings as a fireproof, rotproof, rustproof sheet material for walls and roofs, Johns-Manville Asbestos Corrugated Transite offers a way to save money on *interior* construction and maintenance as well, as shown in the locker room photograph above.

Quickly and economically installed, with a minimum of framing, it requires little or no upkeep . . . is highly resistant to smoke and engine-house fumes. Made of asbestos and cement, practically indestructible materials, it can't rot . . . can't rust . . . can't burn . . . requires no painting.

Corrugated Transite is eminently suitable for use in engine houses, shops, freight terminals, storehouses . . . and in public places where attractive appearance as well as rugged durability are important factors.

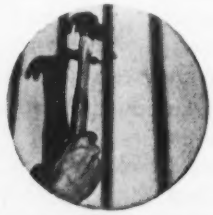
For more facts, send for illustrated brochure. Johns-Manville, New York, Chicago, Cleveland, St. Louis, San Francisco.



EASY TO BOLT TO IRON

EASY TO SAW

EASY TO DRILL



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The Result of Suggestions from Railroad Maintenance of Way and Signal Departments

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No Warped Castings Common to Cast Braces

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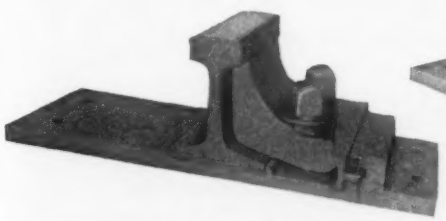
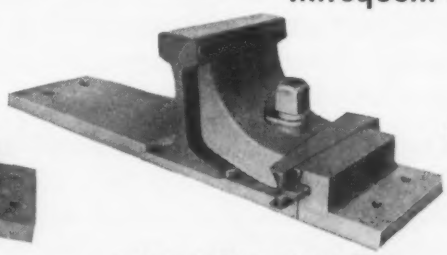


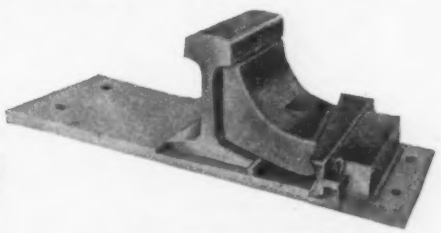
TWO BOLT BRACE

Bolts will be initially tighter and will stay tight longer than on other bolted braces. Maintains gage and is an effective brace to the rail even if bolts work loose. Square-head acorn nuts spaced for 180° turn with ordinary track wrench. Easy to install, adjust or remove.



ONE BOLT BRACE

Single bolt acts as a pivot under rocking motion caused by change of wheel weight from receiving to leaving edges of plate—tends to remain tight longer. Square-head acorn nut permits 180° turn with ordinary track wrench. Easy to install, adjust or remove.



BOLTLESS BRACE

No bolts to corrode, wear or tighten. Controlled flexibility—up and down or wave motion of rail is not limited, yet restricts tipping or side-thrust. Maintains gage, and accurate signal adjustments. Simplicity assures proper maintenance. Four pieces—wedge, brace, key and plate.

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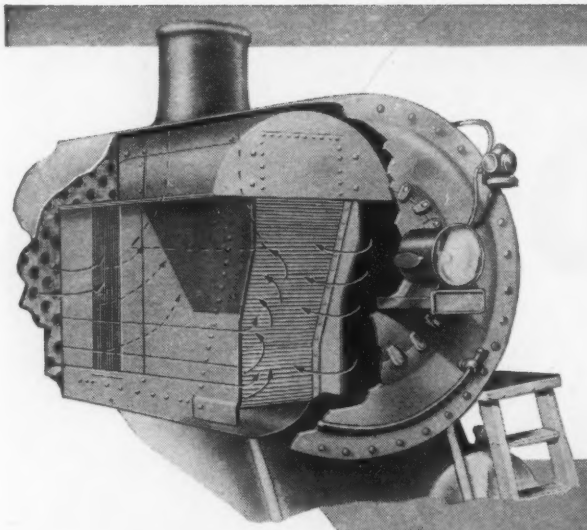


Minimum Maintenance with

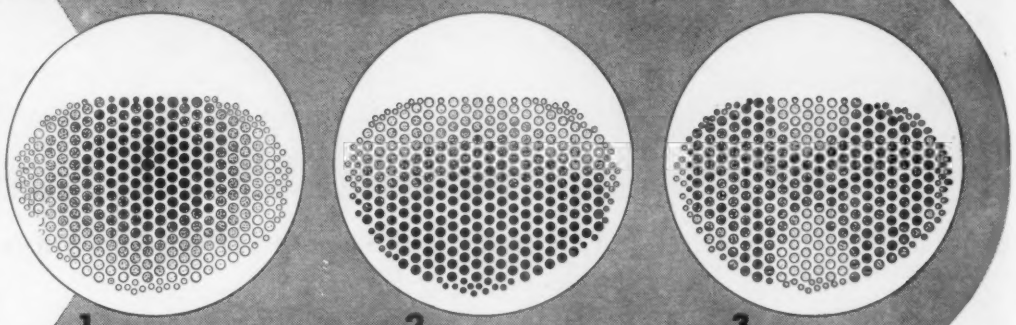
AMWELD
FRONT END
ARRANGEMENT

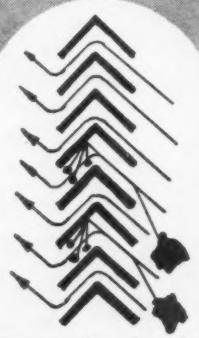
— PATENTED —

1. Theoretical unbaffled condition, showing the relatively high velocity of flue gases through the center tubes.

2. Conventional baffling, showing the relatively high velocity through the lower tubes.

3. AMWELD Aerodynamic baffling, showing the relatively constant velocity through all tubes.





Cross section through the rolled steel louvers, showing the exclusion of large cinders and pulverization of the smaller cinders.

Maintenance problems in connection with the AMWELD FRONT END are considerably simplified. AMWELD aerodynamic baffling produces an equalized draft which results in longer flue life and materially reduces flue cutting. Sketches above show the relative flow of flue gases without baffles, conventional baffles and AMWELD aerodynamic baffles.

Repair work is further lessened by the substitution of rolled steel louvers for the conventional netting, thus eliminating the problem of clogging and burned-out perforations and excessive wear.

These are only a few of the merits of the AMWELD FRONT END. Several railroads have adopted it for benefits and economies best suited to their particular operations. One of our engineers will gladly discuss in detail any questions you have relative to the AMWELD FRONT END and its application to your locomotives.

RAILWAY EQUIPMENT DIVISION

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Designers and Manufacturers of Freight Cars of all Types Including Air Dump Cars

Open top cars are subjected to severe service and concentrated loadings. We will be pleased to assist you in your consideration of such problems.

MAGOR CAR CORPORATION

50 Church Street
New York 7, N. Y.

Here is Armco's Newest Coated Sheet...

Asbestos-Bonded Steel

The newest special sheet steel for car parts and other railway uses is "ARMCO Asbestos-Bonded Steel."

It is the sheet steel counterpart of ARMCO Asbestos-Bonded Steel Pipe—used successfully for many years in better-grade railroad drainage structures. Now this special corrosion-resistant coated steel is available in sheet form in 16 gage and heavier.

ARMCO Asbestos-Bonded has a coating of zinc with a layer of asbestos felt that is firmly pressed into the zinc coating while it is still molten. The asbestos felt layer is then saturated with hot asphalt. The surface is relatively smooth and uniform and is off-black in color.

Many Railway Uses

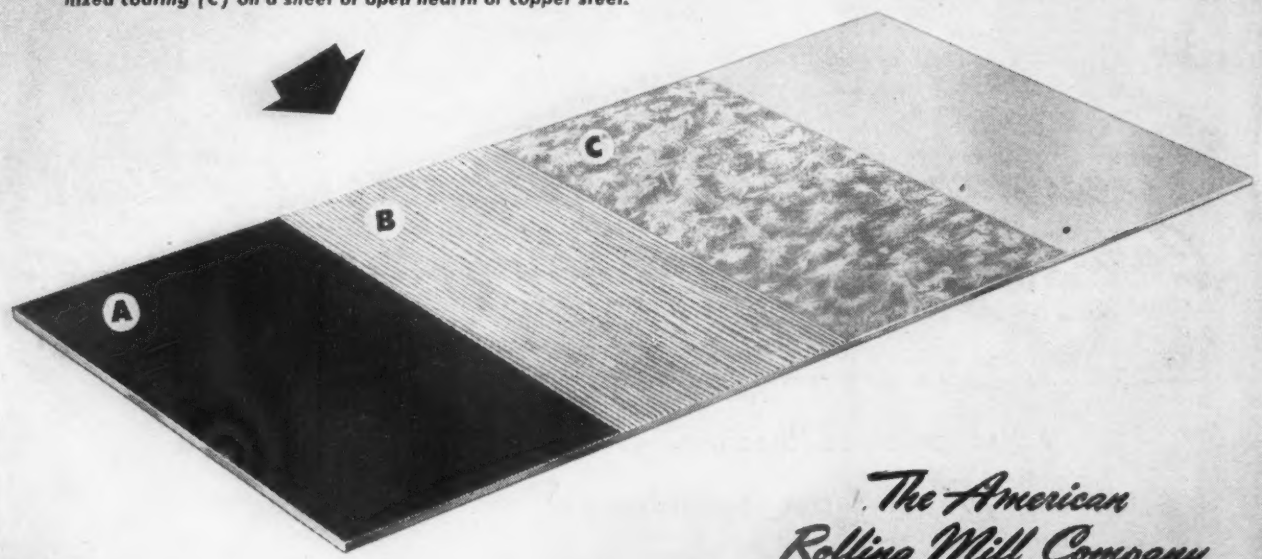
Because it has exceptional resistance to acids, alkalies and water, Asbestos-Bonded Steel is ideal for many railway uses. These include interior parts of refrigerator cars and refrigerated express cars, passenger car flooring, various freight car roofing parts, smoke jacks and blast plates.

You are invited to test ARMCO Asbestos-Bonded sheets in your own equipment—wherever a corrosion-resistant steel is needed. Our metallurgists will be glad to work with you. For full information address The American Rolling Mill Company, 3031 Curtis Street, Middletown, O.

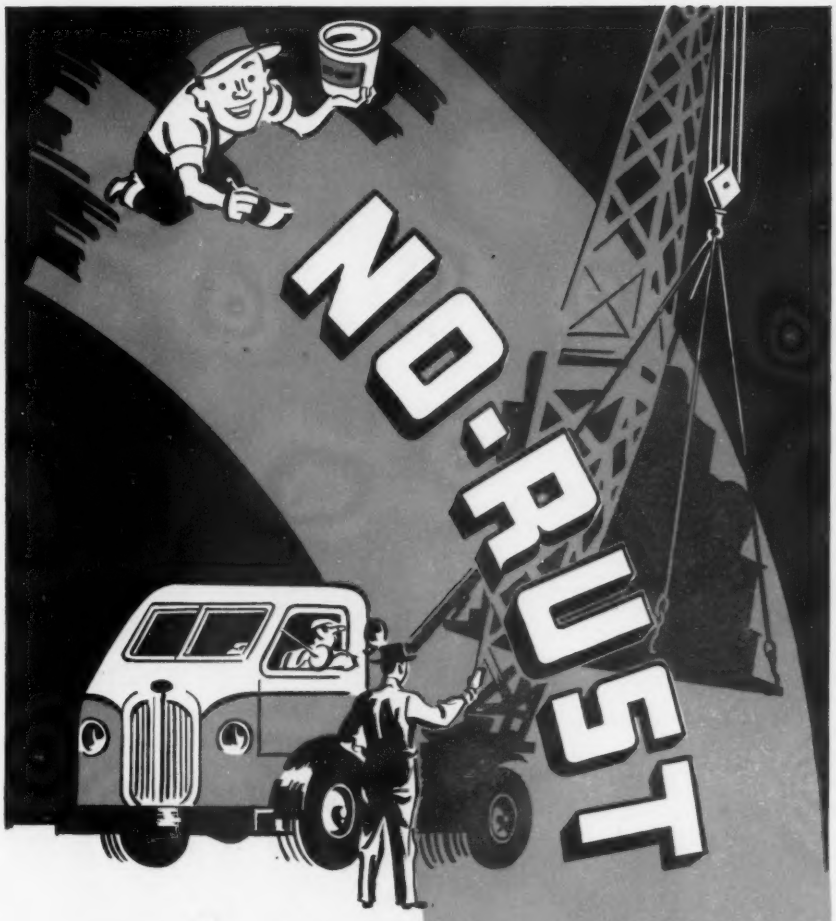
EXPORT: THE ARMCO INTERNATIONAL CORPORATION

SPECIAL-PURPOSE SHEET STEELS

This drawing shows the composition of ARMCO Asbestos-Bonded sheet steel. (A) indicates the asphalt coating on the asbestos fibers (B). These are embedded in the galvanized coating (C) on a sheet of open hearth or copper steel.



The American Rolling Mill Company



ATTENTION RAILWAY AGE ADVERTISERS AND READERS!

Are Your Products Adequately Protected Against a Most Destructive Enemy . . . Rust?

Thousands of dollars of metal materials, equipment and products, *stored* and in *transit*, that are subject to rust and corrosion, are completely protected with NO-RUST. A few dollars of NO-RUST are doing the job . . . In every case . . . In every climate.

YOU WIN!!

No matter what your present requirements and future plans, no matter what you may be using, have NO-RUST speak for itself. Use of anything that protects less, or costs more, is a needless risk and a waste. NO-RUST eliminates both.

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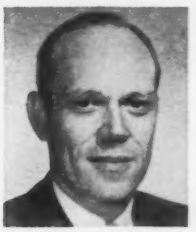
PAINT AND OIL CORPORATION

"The EXACT Finish for EXACTING Needs"

1209 N. E. TYLER ST. • MINNEAPOLIS 13, MINN.

RUST RESEARCH AND PREVENTION



By M. C. SLACK
Vice President Frost Paint and Oil Corp.

Our first experience with rust no doubt was with iron posts eaten through and broken at the ground line, or the corn plow among the weeds back of the barn, and other implements that had to be cleaned and new parts assembled every Spring before they could be used.

Rust always occurs in iron when these three factors come together—water, oxygen and "impurities". Ordinarily this impurity is provided by the carbon dioxide of the air, or by the numerous elements present in small quantities in commercial iron, such as carbon, sulphur, phosphorus, etc. The action of the impurity is to provide a feebly conducting solution with the water, and so set up an electrolytic effect whereby salts of iron (the sulphate or carbonate) are first formed and then decomposed by the oxygen.

That is the simple way in which rust, one of the most destructive of saboteurs in industry and commerce, works.

The results of research by the Frost Paint & Oil Corporation Engineers, over a period of many years and countless experiments is an unusual product —NO-RUST . . . now available in commercial quantities at a low cost that makes the proved and accepted compound economical to use. NO-RUST, as its name suggests, prevents the process by which rust is formed, from starting.

In addition, to be practical in use, NO-RUST is impervious to wear and abrasion. It had to dry to a hard, smooth, non-sticky surface to permit handling without loosening its bond on the metal. It had to be elastic enough to expand and contract with the metal and also to be free from chipping, and also to be easy of removal.

After many experiments, tests, and use in all and every conceivable condition, NO-RUST was developed. Inasmuch as it contains all of these factors, it gives commerce and industry the absolute, positive protection against rust with ease of application and removal, and low cost that makes it an economy and an insurance against positive loss.
—*adv.*

Corning Glass takes on an
"ALL-WEATHER" JOB

In the torrid heat of the mid-summer sun or the icy blasts of sub-zero winter these buoys ride the boundaries of our harbors and channels. They guard the safety of human lives and billions of dollars in shipping.

The large fresnel type lenses used in these buoys are made of Corning glass. Because these buoys are serviced infrequently, the glass must be able to withstand the worst the elements have to offer. This is another example of how Corning signalware is depended upon under severe conditions.

Safety depends on Signal Glassware—Railroads depend on Corning.

Corning Glass Works, Corning, N. Y.

The large lens used in this buoy consists of 9 circular prisms assembled in a bronze frame.

N. Y. Daily News Photo

CORNING
means
Research in Glass

SYPHON LOCOMOTIVES ARE BETTER

10 MORE (Total 30) SYPHON EQUIPPED MALLET LOCOMOTIVES FOR THE BALTIMORE & OHIO

- Each equipped with five Syphons adding 211 sq. ft. (nearly 40%) to the normal firebox heating surface of 545 sq. ft.

Tandem arrangement with center firebox Syphon, intermediate Syphon and combustion chamber Syphon in longitudinal alignment. Syphons so designed especially for the long fireboxes and combustion chambers of Mallet locomotives serve as a stable support for any desired length of arch, provide safety from boiler explosion and with increased heating surface and circulation add much to boiler efficiency and overall boiler horsepower.

NOW 26,221 SYPHONS USED IN 11,025 LOCOMOTIVES ON 191 RAILROADS

Locomotive Firebox Company

PHILADELPHIA CHICAGO MONTREAL

*Trademark Reg. U. S. Pat. Office
by Owens-Corning Fiberglas Corp.

Fiberglas Fibers Do Not Absorb *Moisture*

Thermal insulations for Passenger Cars,
Refrigerator Cars, Tank Cars and Locomotives.

Fiberglas is sold to Railroads and Car Builders exclusively by*

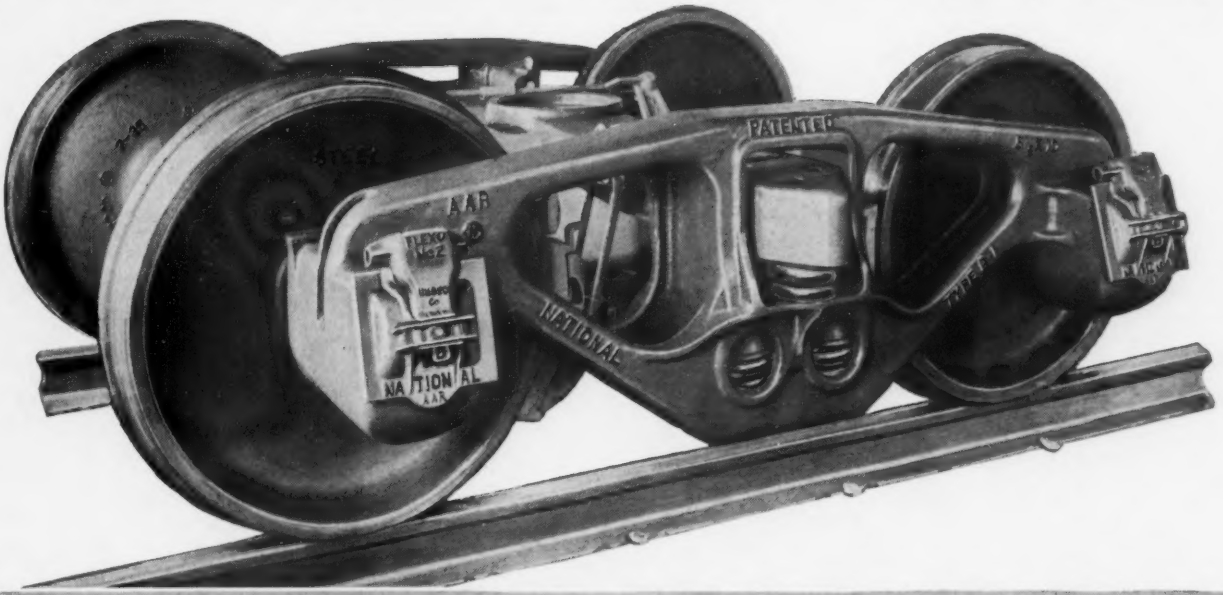
G-B MFG. CO.
ESTABLISHED 1898

GUSTIN-BACON MFG. COMPANY

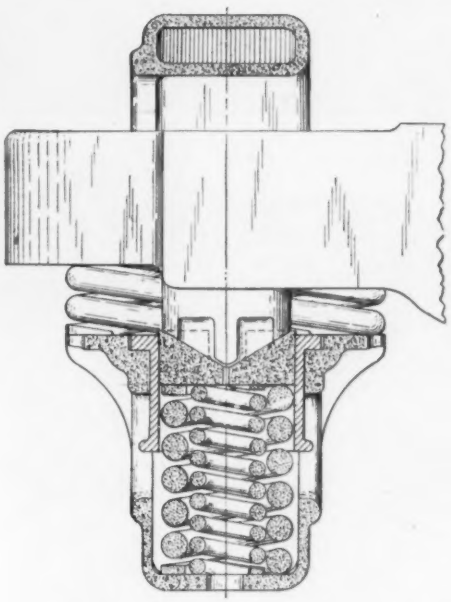
KANSAS CITY 7, MISSOURI

New York Philadelphia Chicago Tulsa Houston Fort Worth San Francisco

National B-1 With Dual Control



The Truck for post-war fast freight service



Section Thru Control Unit
Two Control Units in each frame

Full protection of cars and lading, rails and roadbed, is essential for economical railroad operation.

A smooth riding car relieves the car and contents from damaging vibrations and shocks, reduces wear on track and car structure, and greatly lengthens the life of equipment.

The National B-1 Truck is equipped with four built-in friction units which control both vertical and horizontal oscillations. No separate snubbers are necessary.

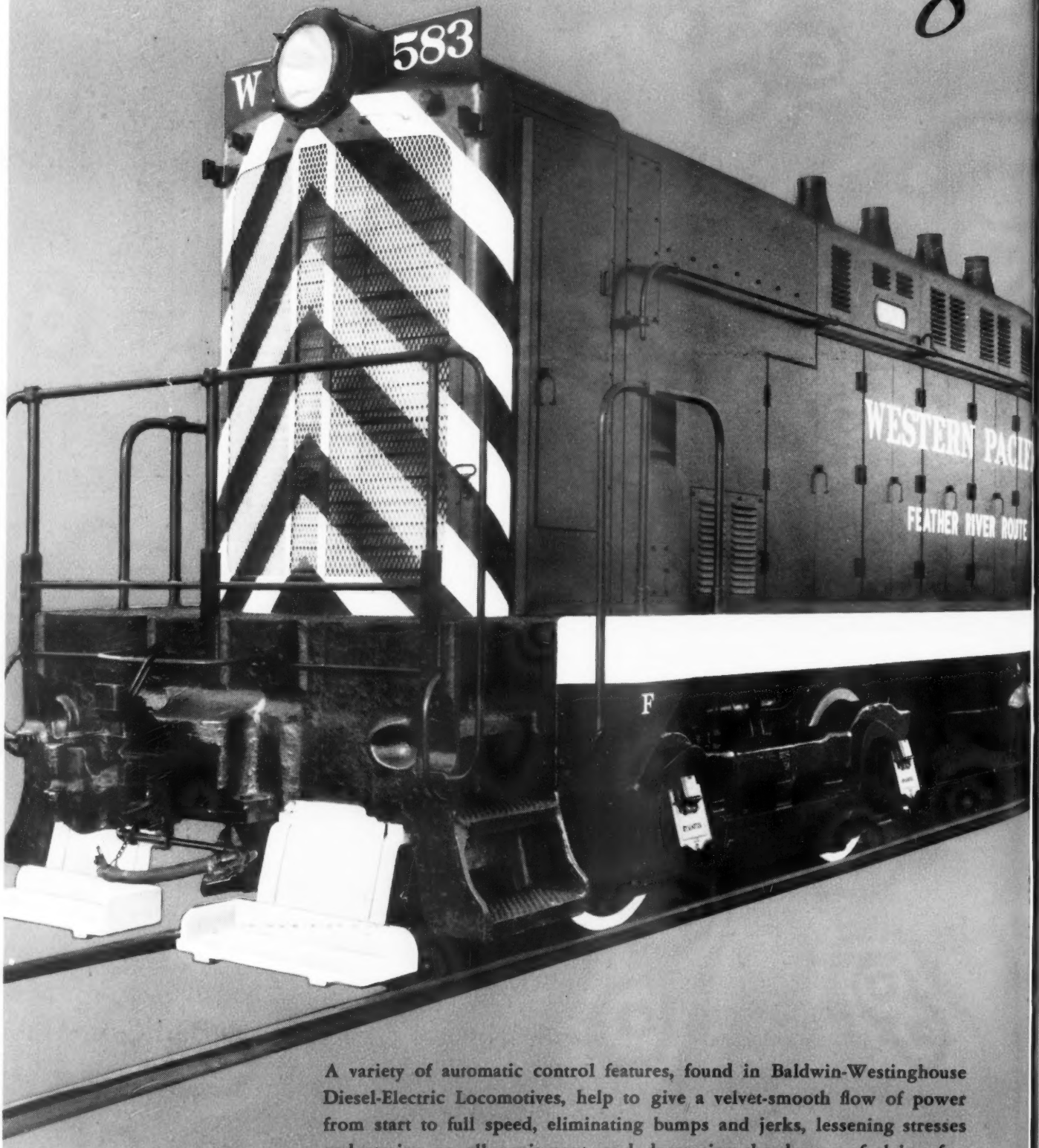
The frictional snubbing action is governed by the load carried, thus assuring a smoother riding car whether light or loaded.

Specify National B-1 Trucks with Dual Control

NATIONAL MALLEABLE AND STEEL CASTINGS CO.
General Offices: CLEVELAND OHIO
Sales Offices: New York, Philadelphia, Chicago, St. Louis, San Francisco.
Works: Cleveland, Chicago, Indianapolis, Sharon, Pa., Melrose Park, Ill.

Canadian Representatives: Railway and Power Engineering Corporation, Ltd., Toronto and Montreal

Gentle handling



A variety of automatic control features, found in Baldwin-Westinghouse Diesel-Electric Locomotives, help to give a velvet-smooth flow of power from start to full speed, eliminating bumps and jerks, lessening stresses and strains on all equipment, and decreasing the danger of claims for damaged lading.

Now serving on leading railroads, Baldwin-Westinghouse Diesel-Electric Locomotives have a record of proven performance that is your best guide in purchasing.

'ERN PACIF

ATHER RIVER ROUTE

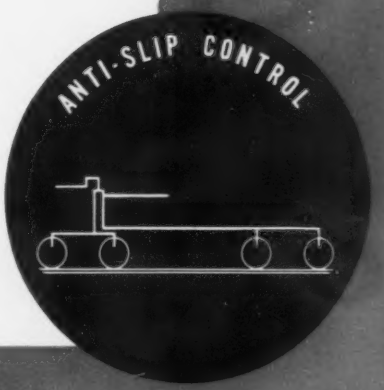
for Lading

These features "Filter Out" the jolts and jars that damage cars and contents.

Air throttle control. No "Notching" with this throttle . . . with engine idling, the first movement of handle establishes electrical connections, and further movement produces a straight-line change in governor setting that gives jerk-free acceleration.

No transition. The connections between motors and generator are not changed. Power-flow is steady and uninterrupted from start to full speed.

Anti-slip control. If wheels start to slip, engine speed is automatically reduced, and restored again as soon as slippage stops.



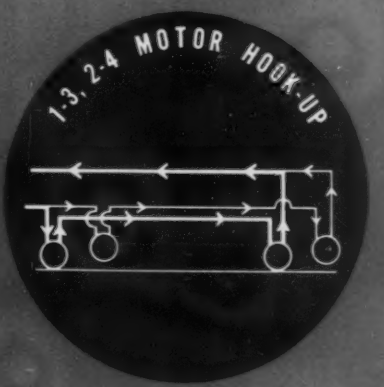
1,3—2,4 Motor hook-up. Through this motor-generator connection, power to the leading wheels in each truck is automatically reduced in case of slippage, and power to the trailing wheels automatically increased.

THE **BALDWIN-** LOCOMOTIVE WORKS, PHILADELPHIA

BLW THE BALDWIN GROUP

WESTERN W CASE

Westinghouse ELECTRIC CORPORATION, EAST PITTSBURGH, PA.



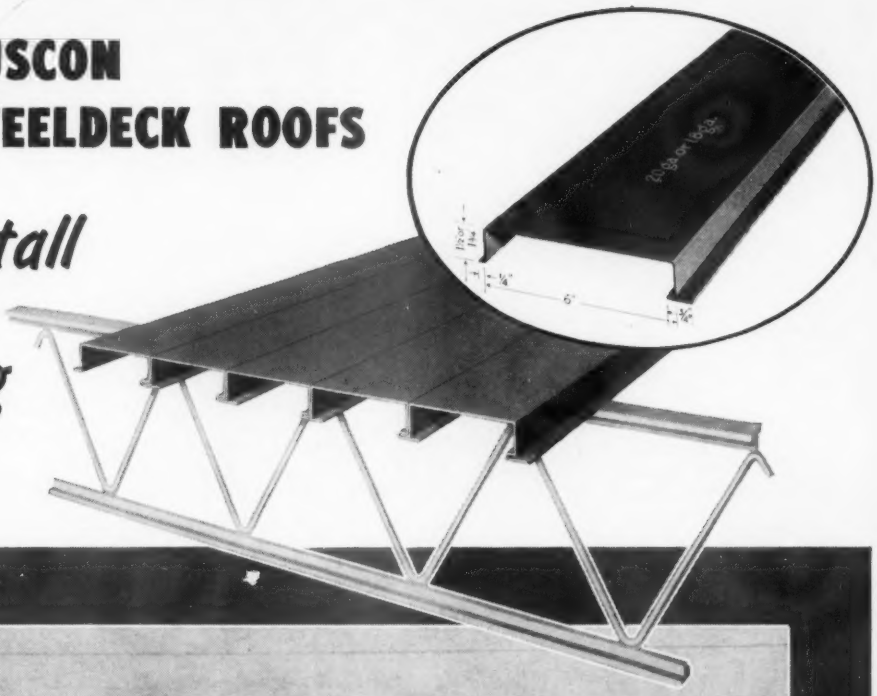
TRUSCON
FERROBORD STEELDECK ROOFS

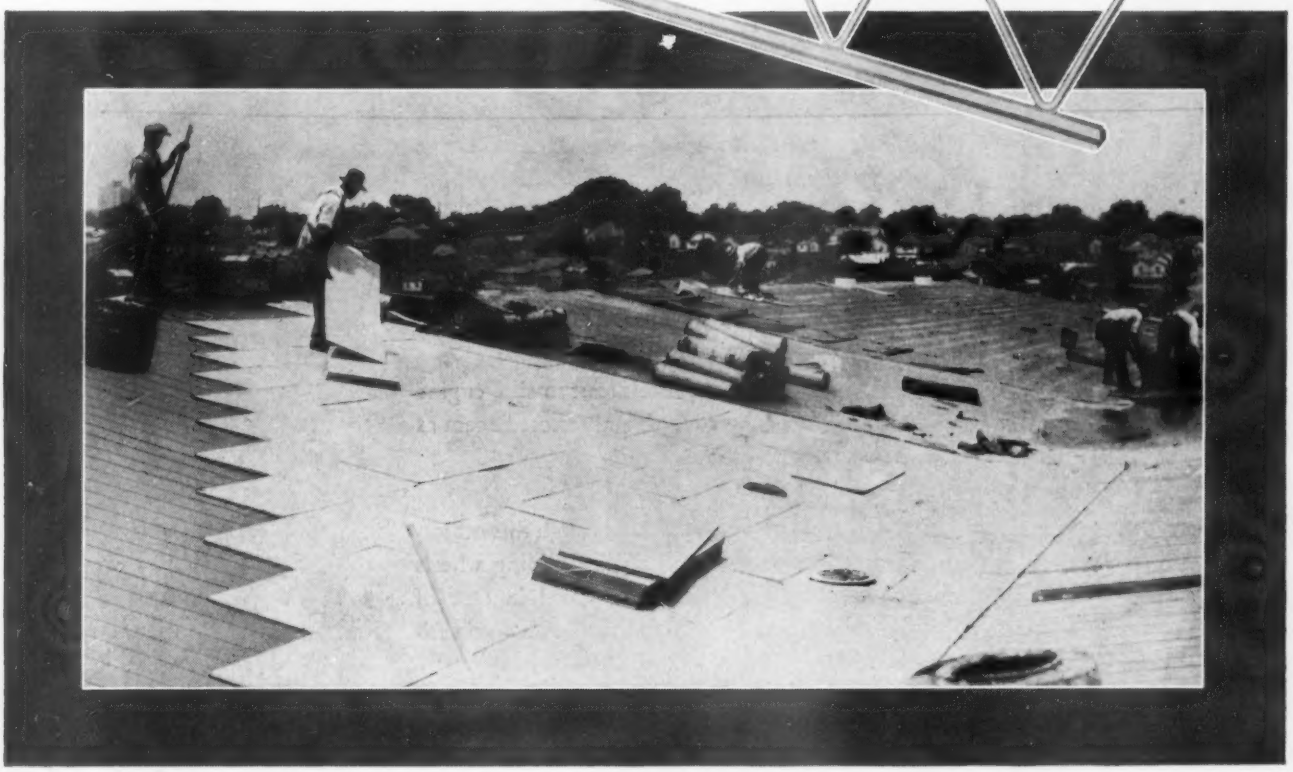
Reg. U. S. Pat. Off.

Quick to Install

•

Long, Long Life





Because of the efficiency of design embodied in Truscon "Ferrobord" Steeldeck Roofs, and the exceptional quality of their materials, they offer unusual opportunities to secure economical, long-lasting, dependable roof construction.

Truscon "Ferrobord" Steeldeck Roofs are particularly adaptable to theatres, gymnasiums, schools, auditoriums, public halls and industrial buildings requiring large areas free from supports and obstructions.

Truscon Steeldeck has the advantages of being light in weight and fire-resistant. It can be insulated and waterproofed to any degree required.

Plan on Truscon "Ferrobord" Steeldeck Roofs for your current structures, and ask our experienced engineers for assistance in helping you develop efficient, long-lived roofs.

TRUSCON STEEL COMPANY • Youngstown 1, Ohio
Subsidiary of Republic Steel Corporation

TRUSCON
Reg. U. S. Pat. Off.

STEELDECK ROOFS
• *Cover the Continent* •

Schaefer BRAKE BEAM HANGERS

Schaefer
Loop-Type No. 183
U-Type No. 922—Interlocking
U-Type No. 763—Balanced Weight
Offset Stirrup Type No. 942—Open Eye
Offset Stirrup Type No. 941—Closed Eye
Solid Forged Special Stirrup Type No. 611
Less Weight ☆ Full Strength

Standard on Most Railroads

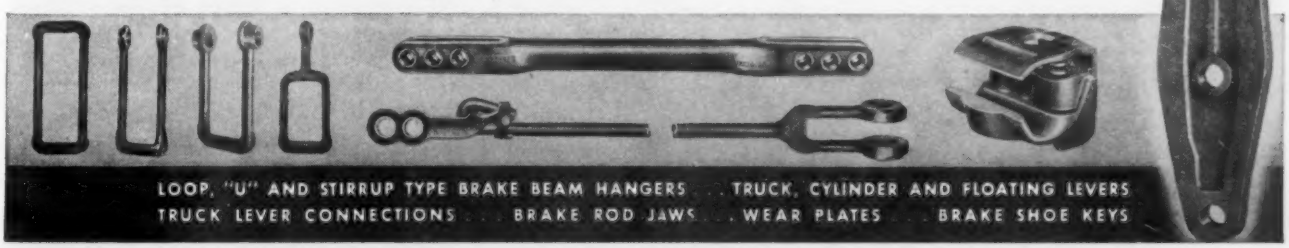
Every operating man knows how tragically true is the statement—"One broken hanger can hold up a train."

You can minimize the chances of train delay by using Schaefer loops. These hangers are of equal strength and uniform resistance to wear, oil-quenched within a close temperature range, and now standard on most railroads.

Write today for your copy of the Schaefer catalog

Schaefer EQUIPMENT COMPANY

KOPPERS BUILDING • PITTSBURGH, PA.



LOOP, "U" AND STIRRUP TYPE BRAKE BEAM HANGERS . . TRUCK, CYLINDER AND FLOATING LEVERS
TRUCK LEVER CONNECTIONS . . . BRAKE ROD JAWS . . WEAR PLATES . . . BRAKE SHOE KEYS

CLEAN BALLAST IS **IMPORTANT**

Clean ballast is necessary to maintain surface and line and to reduce maintenance of way costs. Cleaning ballast efficiently, economically is the important job of McWilliams' new model "MOLE" Ballast Cleaners. The new model "MOLE" improvements provide for faster and more economical ballast cleaning—

speed and screening capacity increased 25%

wider cleaning range

more horsepower

electric starting

greater accessibility of engine and parts

700 ft. to 1200 ft. intertrack space and 850 ft. to 1200 ft. shoulder space cleaned in 8 hour day.

McWilliams' "MOLE" Ballast Cleaners are available in Border and Intertrack models.

RAILWAY MAINTENANCE CORP.

Pittsburgh 30, Pa.

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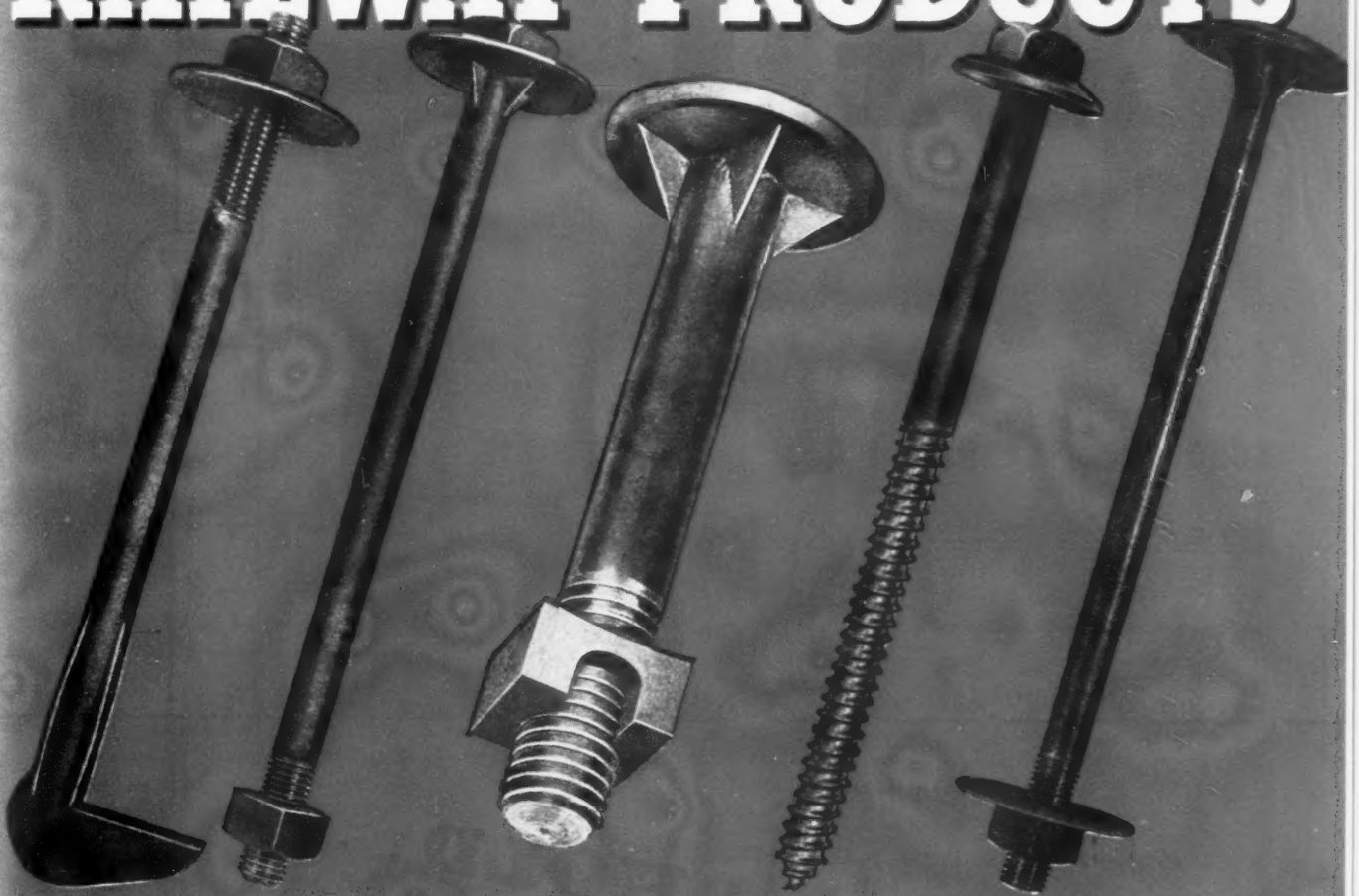
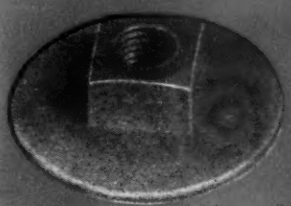
RAILWAY AGE

SEALTITE
RAILWAY PRODUCTS



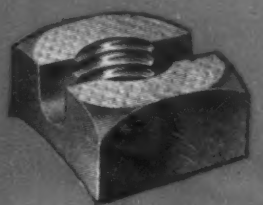
SEALTITE HOOK BOLT | SEALTITE TIMBER BOLT | SEALTITE CAR BOLT | SEALTITE LAG SCREW | SEALTITE GUARD RAIL BOLT



SEALTITE WASHER NUT

***Double-Life* FINISH—Sealed in Zinc**

Actual service tests reveal distinct economies are effected by specifying Sealtite Railway Products with Double-Life Hot-Dipped, sealed in zinc finish. Corrosion is retarded—the fasteners have much longer life and expensive replacements are eliminated. Protect your investment—*specify* Hot-Dipped Galvanized—Sealed in zinc.



LOKTITE NUT

LEWIS BOLT & NUT COMPANY, 504 Malcolm Ave. S.E., Minneapolis, Minn.

Serving 72% OF AMERICA'S CLASS I RAILWAYS

LIFT

and HOLD . . .

Only Malabar Hydro-Mechanical Journal Masters are available in a 7 inch model. This low height permits spotting jack under spring bracket, in yards with paved surfaces. Specify Malabar, the Lift with a Lock, for positive protection from settling or accidental lowering of heavy loads.

MALABAR

A PRODUCT DIVISION OF
MENASCO MANUFACTURING COMPANY
Dynamics • Hydraulics •• BURBANK, CALIFORNIA

QUESTION:

Just how effectively can used oil be restored?

ANSWER: SO EFFECTIVELY THAT OIL NEED NEVER BE DISCARDED!

QUESTION: ***What Steps Are Necessary to Restore Oil for Re-Use?***

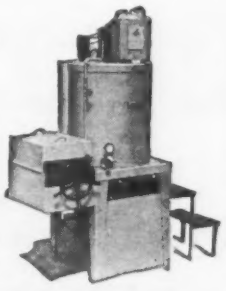
ANSWER: *For best results, the oil should be* heated, *to remove moisture and fuel dilution (if present). Then, solids, asphaltic materials and acids should be removed by contact with earth and filtration. Acidity should be reduced to new oil values.*

QUESTION: ***Can All These Steps Be Carried Out in a Single Piece of Equipment?***

ANSWER: *Yes, the YM Oil Refiner, a single self-contained unit, provides for* both *heating of the used oil, and for* two-stage *filtration.*

QUESTION: ***Is the YM Process Economical and Simple to Operate?***

ANSWER: *For every dollar spent for filtering materials, the YM method removes more pounds of contaminants than any other method known. Automatically controlled, the Oil Refiner needs little attention from the operator—no special skill is required.*



QUESTION: ***Is the Restored Oil Equal to New Oil?***

ANSWER: *Oil restored in the YM Oil Refiner can be used in the same manner and place as new parent oil. In fact, the restored oil, having been tempered, is frequently* more stable *than new oil.*

QUESTION: ***What Kinds of Oils Can Be Restored in a YM Unit?***

ANSWER: *Practically any kind used by industry. You'll find a helpful list in our YM bulletin—just mail the coupon for a copy. Or write us about your specific problem.*

THE YOUNGSTOWN MILLER COMPANY
A Subsidiary of Walter Kidde & Company, Inc.
1220 Kidde Avenue, Belleville 9, New Jersey

The Youngstown Miller Company
1220 Kidde Avenue
Belleville 9, New Jersey

Gentlemen:
Please send me further information about the YM Oil Refiner—and names of users in this locality.

Name_____

Position_____

Company_____

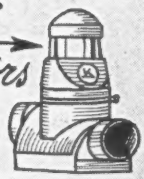
Street Address_____

City and State_____

BUILT-IN FIRE PROTECTION

For gasoline or Diesel engines-old or new buses

(1) **SPOTS FLAMES INSTANTLY**—detectors in fire zone act at once on contact with fire. No false alarms from heat or vibration, though!

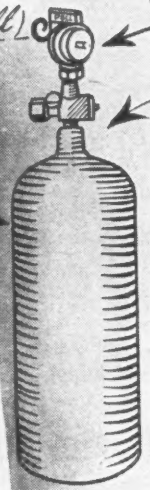


(2) **WARNING LIGHT** flashes fire signal to driver right away.

(3) **CIRCUIT EASILY CHECK-TESTED** by two buttons on indicator panel.

(4) **DRIVER JUST PULLS A HANDLE** to actuate control head—no need to leave his seat.

(cable pull)



(5) **FLAME-KILLING CARBON DIOXIDE** stored under high pressure in Kidde cylinders.

(6) **GAS DISCHARGES FAST** through Kidde flood valve. Carbon dioxide pressure supplies the only energy needed.

(7) **SPECIALLY DESIGNED NOZZLES** direct carbon dioxide into engine compartment—flames are killed in seconds!

(8) **DRY INERT GAS** cannot damage engine—no moisture, no chemical attack.

(9) **PROVED ON MILITARY TANKS—NOW ADAPTED FOR BUSES!**

Get the full story *today* on this fast, sure system for detecting and fighting engine fires. Write for bulletin giving further details.

Walter Kidde & Company, Inc. **1252 Main Street, Belleville 9, New Jersey**

Kidde

The word "Kidde" and the Kidde seal are trade-marks of Walter Kidde & Company, Inc.

Kidde

...N
...buses

...TESTED
...r panel.

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...R BUSES!

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RAILWAY AGE

NEW

The new Monroe Direct-Double-Action *Hydraulic* Shock Absorber especially designed for freight car trucks embodies the same exclusive principles first to be accepted for smoothing the ride on America's high speed crack streamliners. By controlling destructive vibration the new Patented Monroe Direct-Double-Action *Hydraulic* Shock Absorber for freight car trucks cuts vertical and swaying action . . . protects lading . . . prolongs equipment life and reduces roadbed wear. Maintenance costs and damage claims are reduced and cars are kept at work longer. Our Engineers will gladly work with you in the application of this modern new Monroe equipment. Just write, wire or phone our nearest branch office.

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ARMY E NAVY

OUT.. IN 14 MINUTES BY "SUB-SURFACE" METHOD

MEARLFOAM 5

U. S. Navy test on 93′ diameter blazing tank shows . . . "SUB-SURFACE" Method of foam applications kills gasoline fires—when properly engineered foam liquid is used.

MEARLFOAM-5 was successfully employed at this U. S. Navy test at Findlay, Ohio in July 1945. The multi-protein, blended foam-producing liquid is the same dependable mechanical (air) foam liquid supplied to the Navy for shipboard and shore base fire-fighting during wartime—and now supplied to the Navy for peacetime protection.

Ask for condensed data sheet describing the properties of this war-born fire-fighter that yields the live, lasting, fire-resistant (air) foam. *Technical assistance available.*

Completely safe and non-corrosive—may be used with standard Mechanical Foam-Forming Equipment

★ ★ MEARLFOAM-5, in pre-mixed solutions with hard or sea water, will not form any objectionable precipitate on long standing.

FOAM ON FIRE OUT... Stays OUT!

THE MEARL CORPORATION
153 Waverly Place, New York 14, N.Y.

They help make the going easier...

ALCOA ALUMINUM OIL-COOLED PISTONS

Supercharging and higher engine output have added to the heat load which pistons, cylinder heads and liners have to carry. You can help that situation with oil-cooled aluminum pistons. The general reduction of temperature levels thus obtained eliminates piston ring sticking and reduces wear on rings and liners.

Alcoa supplies three types of oil-cooled pistons: Spray-cooled, the slosh-cooled or "cocktail shaker" type, and those cooled by directed-flow of the oil. Of course, all have the advantage that, made of aluminum, heat is distributed more uniformly throughout their mass.

Operating characteristics of an engine determine the type of cooling which should be used. Alcoa engineers will gladly help you with this problem. Write ALUMINUM COMPANY OF AMERICA, 2178 Gulf Building, Pittsburgh 19, Pa.

ALCOA FIRST IN **ALUMINUM**

ALCOA ALUMINUM

MODERN HANDLING METHODS

Now a Must!

There's no time to lose in getting operating costs on a competitive peace-time basis. Modern methods of handling are now a *must.* Electric industrial trucks, for example! Palletized loads! And, of course, the newest development in motive power Storage Batteries . . . the sensational Philco "Thirty" that gives 30% longer life! Try Philco "Thirty" in your hardest-working trucks. The tougher the job the better it shows up. Write for the facts today.

● The new Philco "Thirty" Industrial Truck Storage Battery, that gives 30% longer life, is identified by its distinctive red connectors.

PHILCO *Famous for Quality the World Over*

FOR 30 YEARS A LEADER IN INDUSTRIAL STORAGE BATTERY DEVELOPMENT

Tune in The Radio Hall of Fame, with Paul Whiteman and His Orchestra, Sundays, 6 P.M., EST; The Breakfast Club with Don McNeill, 9:45 A.M., EST, Monday through Friday—ABC (Blue) Network.

PHILCO CORPORATION · STORAGE BATTERY DIVISION · TRENTON 7, NEW JERSEY

CAST *Blast Furnace* BELL

THAT *Rings the Bell*

PSF Castings—whether an 18-foot diameter blast furnace bell or an item you could hold in your palm, whether they weigh one pound or a hundred thousand pounds —are *right* in every detail of analysis, uniform grain structure, strength and dimensional accuracy. That's the way we produce them, because that's the kind of quality work we're *equipped* to produce. Rich experience, advanced methods and completely modern equipment are all ready to go to work for you at PSF . . . we'll welcome your inquiries.

47 YEARS OF STEEL CASTING KNOWLEDGE

Pittsburgh

STEEL FOUNDRY CORPORATION

Glassport, Pa. · Fort Pitt Steel Casting Div., McKeesport, Pa. · Pittsburgh Spring and Steel Co. Div., Pittsburgh, Pa.

W&D 9895

Sales Offices: NEW YORK • PHILADELPHIA • CHICAGO • CLEVELAND • CINCINNATI • AKRON • WASHINGTON

Clean as a

That's what people will say about Hewitt Restfoam seat cushions, pillows and mattresses in the "train of tomorrow"... because Hewitt Restfoam is easy to CLEAN, easy to *keep* clean. This new foam rubber product is

Sanitary ... odorless, washable, vermin-repellent.

Comfortable ... yields to every contour of *any* person's body, yet offers firm *natural* support.

Light Weight ... for instance, a Restfoam mattress weighs about ⅓ less than an ordinary mattress.

Cool ... self-ventilated by millions of tiny interlaced air cells.

Keeps Its Shape ... always returns to its original shape; nothing to pack or mat down.

© 1945, HEWITT RUBBER CORPORATION, BUFFALO, N. Y.

HEWITT RESTFOAM

Made by **HEWITT RUBBER** *of Buffalo*

240 Kensington Avenue, Buffalo 5, N. Y. • Quality Rubber Products for 85 Years

SEND TODAY FOR YOUR FREE COPY OF "REST ASSURED WITH RESTFOAM"

Yoloy...door to today's modernization

THIS new box car door is fabricated from deep drawing cold reduced Yoloy--the nickle-copper-phosphorus steel that offers a practical solution to the corrosion attack that this type of equipment must endure. This cold reduced low alloy high tensile steel insures better appearance, minimum upkeep and longer life.

The corrosion resistance property makes possible the use of thinner sheets that are also stronger and tougher than the usual carbon sheets. The net result is a light weight door that keeps its shape and is easier to operate through a long service life.

Investigate Yoloy now. Use it for car doors and sides and reduce dead weight as much as 25%. Write, wire or phone for full information on this proven high-tensile steel.

A carload of Yoloy doors leaves the plant of The Youngstown Steel Door Company, on its way to play a part in one railroad's car modernization program.

QUALITY V YOUNGSTOWN SERVICE

YOUNGSTOWN

THE YOUNGSTOWN SHEET AND TUBE COMPANY

YOUNGSTOWN 1, OHIO

Export Office . . 500 Fifth Ave. New York

Manufacturers of

CARBON · ALLOY AND YOLOY STEELS

Pipe and Tubular Products-Sheets-Plates-Conduit-Bars-Electrolytic Tin Plate-Coke Tin Plate-Rods-Wire-Nails-Tie Plates and Spikes

Even the grease, grit and grime of station platforms vanish like magic when Turco Aktiv goes to work . . .

Not only does this remarkable cleaner speedily and thoroughly emulsify grease and oil, but it also provides, under continued use, a bleaching action that will make cement floors, walks and platforms gleam.

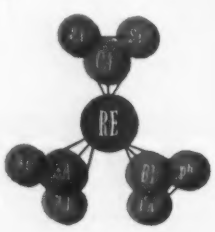
Through *Surface Chemistry,** Turco Aktiv penetrates deeply into pores and cracks which are ordinarily uncleanable. The dirt is brought to the surface where cold water will flush it away without a trace.

Aktiv is easily and quickly applied without scrubbing or scraping. A mop, a bucket and a hose are all the equipment you need.

A granular material, Turco Aktiv is safe and pleasant to use. Since it dissolves completely in water, it may be made into a stock solution for immediate use. Or sprinkle Aktiv on a wet cement surface and, in a few minutes, lightly work it into cracks and rough spots with a broom or brush. Then hose it off or mop with clear water and—one of the toughest, hardest cleaning jobs is easily and quickly done.

Aktiv is inexpensive. Let a Turco Field Representative demonstrate Aktiv on the dirtiest, toughest cement surface in the place. Write Turco, Dept **RA-12.**

**This is Turco Surface Chemistry*



Surface Chemistry is the scientific balance and application of these cleaning factors to a specific problem.

WA—Wetting Action
EA—Emulsifying Action
SV—Saponifying Value
SA—Solvent Action
CA—Colloidal Activity
WC—Water Conditioning
BI—Buffer Index
pH—Energy of Alkalinity
TA—Total Alkalinity
RE—Research and Experience, the combining factor that puts all the above elements into balance and to work on your specific problem.

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TURCO INDUSTRIAL CLEANING COMPOUNDS

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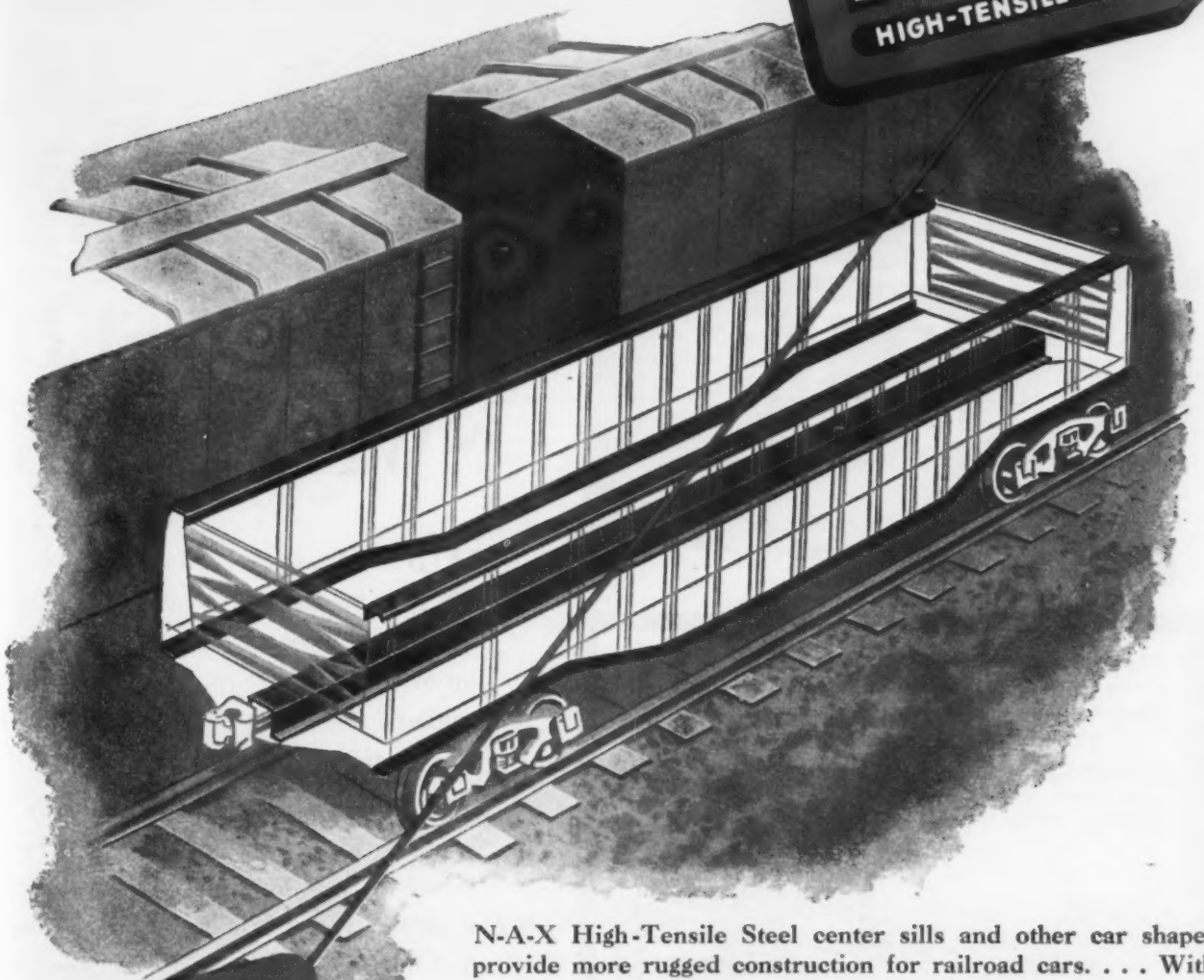

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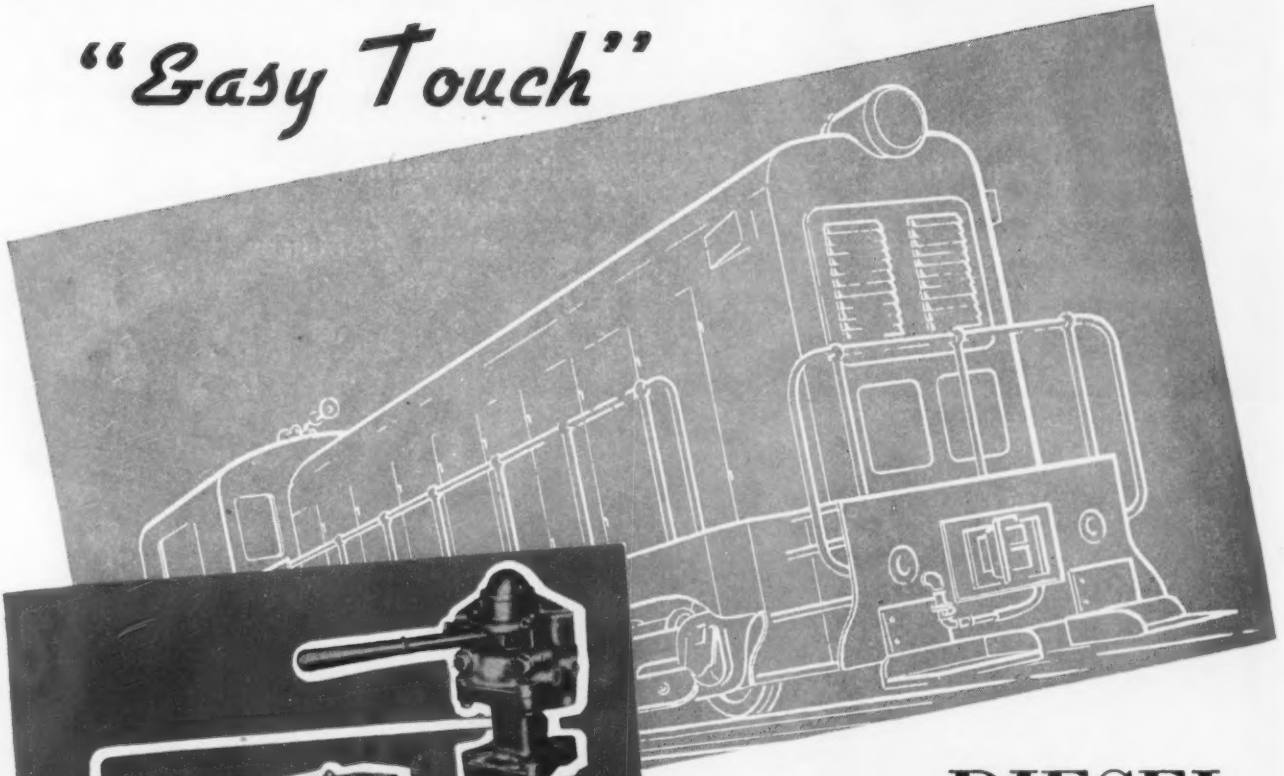

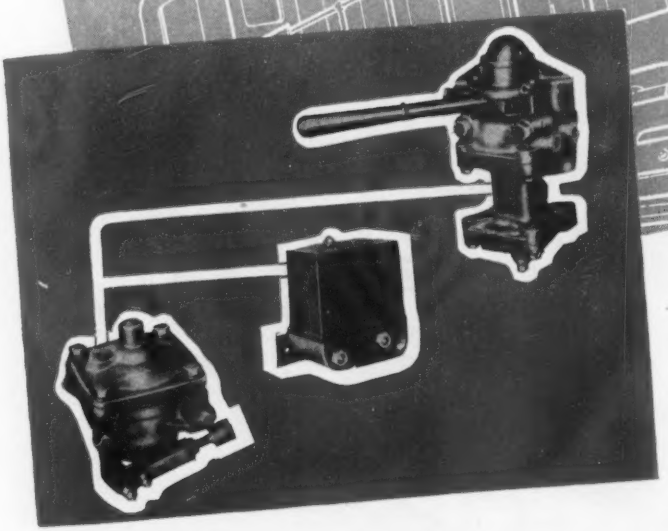

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Railway Age

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The Railway Age is indexed by the Industrial Arts Index and also by the Engineering Index Service

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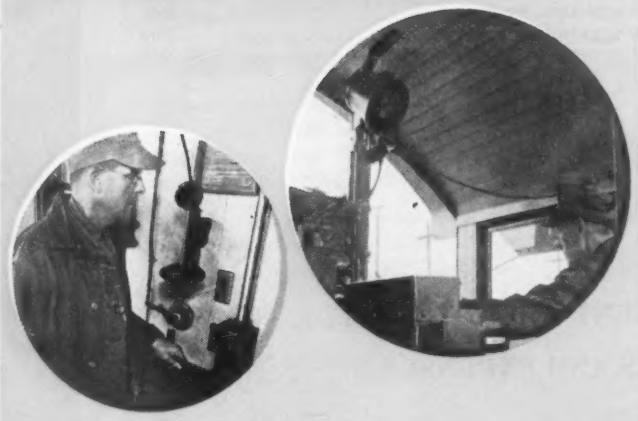
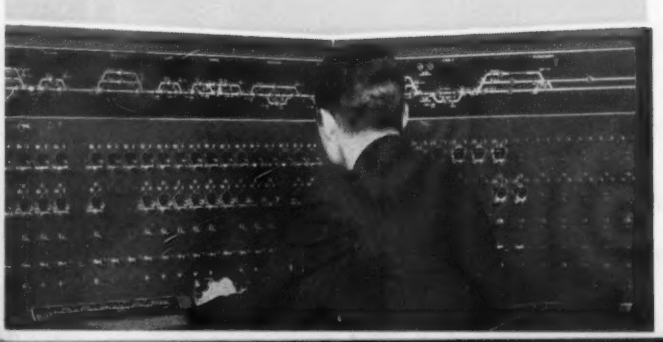
WORK ON TODAY'S SIGNAL SYSTEMS

began 64 years ago





The equipment shown here is representative of the modern signal systems which the Union Switch & Signal Company is supplying to railroads today—equipment which is essential to the movement of the huge volume of traffic which the railroads have been called on to handle during the past few years.

This equipment has been produced at wartime speed—but work on it really began in 1881, with the beginning of the Company.

In that year, for example, "Union" began to plan the first power interlocking in the United States. Every year since then has brought some new signal development, some improvement in railroad signal systems. Some of these changes have been minor, some have been revolutionary—but each grew out of the experience of the past and paved the way for further improvement in the future.

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The Week at a Glance

TRANSPORTATION POLICY: Among those to whom Chairman Lea of the House interstate and foreign commerce committee has sent "questionnaires" to elicit comment preparatory to a thorough and carefully-prepared investigation of the national policy toward transportation are several of the editors of this paper. Their views on the principal—and vitally important—subjects listed by the committee are set forth in this issue. The existing national transportation policy is criticized not as to its stated objectives, but as to the means provided to attain them. For example, it is pointed out that there is no provision for such control over the government's participation in transportation competition as there is over participation by private business, particularly by the railroads, in spite of the fact—which is not often taken into consideration in such discussions—that the government is the largest single interest engaged in the transportation business. Because the federal, state and local governments own practically all the fixed plant used by water, air and highway transportation the same tests of public convenience and necessity, and of economic demand on a basis that will match costs with earnings, ought to be applied to the creation and operation of that plant as are applied, through regulatory agencies, to the privately owned plant provided by the railroads.

●

BOARDS NEED BOLSTERING: Another point brought out in the comment on the questions raised by Chairman Lea is the divergence from the intent of the framers of the law which has been allowed to develop in the functioning of the "emergency boards" set up under the Railway Labor Act. So long as these boards have so little prestige that union leaders flout their findings at will there is need for some sort of legislation to provide "sanctions" sufficiently persuasive to bring about generally peaceable acceptance of their awards. So long as the union leaders, taking advantage of the precedent established under White House pressure on the eve of Pearl Harbor, are able to use this machinery which was created for the settlement of disputes as a device by which to secure concessions which impartial judgment already has denied them, just so long will there be need for some action by Congress to correct a condition that threatens the industry's welfare.

●

PREJACKETED PILES: The Southern's experience in using creosoted piles, jacketed with reinforced shotcrete before being driven, in waterfront locations where marine borer infestations have been particularly troublesome, is the subject of an illustrated article on page 888, in which the technique employed in applying the jackets, and anchoring them for the driving process, is developed in some detail.

●

NOT MONOPOLY-MINDED: A lot of the misrepresentation of the railroad industry's attitude toward competition in transportation that abounds these days would be given short shrift by an informed public. The trouble is, the public is not informed, and an editorial this week suggests that it is about time for the railroads to sharpen up their pencils and set down in plain, forthright English just exactly what their policy is toward other forms of transportation, so that the public will be sufficiently well advised to challenge erroneous and damaging accusations and to assay propaganda of antagonistic origin at its true worth. The railroads can make it clear, if they will work intelligently and persistently at the task, that they do not fear fair competition in transportation—though they may fear subsidized, politically favored competition that does not require traffic to pay its way. And they can make it clear that they do not want to monopolize all transportation for the simple reason (apart from all others that might be mentioned) that, in an equitable political environment, their economic superiority is so definite that there would be no need to do it.

●

TRACK GANG SIZE: Advantages claimed for the use of large, floating gangs to perform all track maintenance work, as compared to those peculiar to the small, resident, section gang they would replace, are discussed editorially in this issue. Even though it is true that the increased mechanization of maintenance work, and also the higher character of the modern track structure, have impelled the reorganization of section gangs into larger units, in many instances, than were practicable in the old hand-car days, it does not necessarily follow that the permanent section organization can be done away with to advantage under all conditions.

●

A MATTER OF FRACTIONS: If the good of three-fourths of the population can best be provided for under one economic philosophy, and if the other one-fourth has been led to believe that its good can best be provided for under another (and conflicting) philosophy, it would appear to be a matter of elementary logic, at least under a democratic form of government, for the philosophy favorable to the greater number of persons to prevail. But the set of economic theories that puts the good of the one-fourth first seems in the ascendency in this country now. If it does prevail for any length of time, the leading editorial this week points out, the purchasing power of the majority will be dangerously diminished—bringing on either depression or uncontrollable inflation. It's up to men in public life, and men in private business, too, to resist every step toward effecting the philosophy that would lead straight to such disaster.

●

IN BRIEF: The Milwaukee is traveling under its own steam again; the reorganized company was ordered to take over the property December 1. . . . The Shippers Boards' second quarter estimate of carloadings turned out to be 0.1 per cent too high. . . . The Kansas City Southern has been allowed to go ahead with the refunding operation which an I. C. C. examiner didn't like the looks of; Division 4 apparently gave more weight to the management's views. . . . Truck strikes are slowing down l. c. l. freight movement at several points.

SHOP SUGGESTION SYSTEMS: The report of the Committee on Employee Relations of the Locomotive Maintenance Officers' Association which appears herein sums up the benefits which can be expected to accrue from a well-planned, honestly-administered employee suggestion system in motive-power shop and terminal operations. Troubles that have to be overcome and practical problems of organization and management that have to be encountered are analyzed in the light of experience derived from the use of such systems on railroads that had some 382,000 employees eligible to make suggestions.

●

OFFICERS' UNION: Over in Britain, according to a news item herein, the officers of the railroads have formed a "guild" to act as their representative in dealing with management on matters affecting their collective welfare or working conditions. Both active and pensioned officers are included in the membership, and the suggestion has been made that an important function of the organization will be the preservation of the pension system if the present British government nationalizes the railroads.

●

SYMPATHY STRIKE: More than a thousand of the Southern's mechanical department employees were on strike when this issue went to press. The dispute is not between "labor" and management, but is another jurisdictional quarrel between unions, with the management helpless on the sidelines, under the provisions of its agreement with the shop unions. Of course there is also a clause in the agreement binding the union not to suspend work pending the settlement of a grievance, but that's a horse of another color, apparently.

●

JOB FOR THE I. C. C.? Investigation by the Interstate Commerce Commission of all motor trucking operations conducted by affiliates of the Pennsylvania has been recommended by a one-man "joint" board, whose report is reviewed in this issue's news pages. One outcome of such an investigation, it was suggested, might be simplification and correlation of the restrictions under which these operations are performed. Meanwhile the commission was unsuccessful, at least in the House appropriations committee, in an effort to get more money for this fiscal year's activities of its motor transport bureau.

●

TAX TROUBLE: Even though the Southern Pacific has been paying a franchise tax to the state of Kentucky, where its statutory office is maintained, for many years, the state's taxing authorities seem to have come to the somewhat belated conclusion that they have been missing something. There isn't a mile of S. P. trackage in Kentucky, of course, but the state is now claiming the road ought to pay personal property taxes on all the securities it owns, though it keeps them elsewhere. The amount of that tax bill each year would be greater than the entire amount of taxes on intangibles paid the state by all its other taxpayers.

IT'S A GREAT NEW DAY FOR RAILROADING

MAKING UP TIME

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RAILWAY AGE

The Purchasing Power of the Forgotten Three-Fourths

As was true immediately following World War I, the problem of settling disputes regarding wages and working conditions has become the most important problem confronting the nation. But this problem has been made much more difficult and menacing by the increase in power of the labor unions and the widespread acceptance during the last dozen years of certain dangerous economic theories.

Collective bargaining has been accepted and established by law as a sovereign means of fairly and satisfactorily settling disputes between "management" and "labor." And it is quite generally assumed that the principal purpose of every bargain collectively made by management and leaders of labor unions, and of every piece of legislation affecting economic conditions passed, should be to maintain or increase the purchasing power of "labor," meaning members of labor unions.

But only about one-fourth of all in this country who work for a living belong to labor unions. How about the purchasing power of the forgotten three-fourths who do not belong to labor unions, but who have to buy the products and services of the industries that employ union labor? Obviously, the important question is not what effect the wages and working conditions secured by the unions will have on the purchasing power of the one-fourth of the workers and producers who belong to unions. The important question is, what effect the wages and working conditions secured by the unions will have on the purchasing power of the three-fourths of the workers and producers who do not belong to unions.

Creating a Maximum Market

The creation of the largest practicable total market for goods and services is essential to attainment of the highest practicable levels of production and employment. Nothing can long be produced without a market in which it can be sold at the price which must be asked for it. And the establishment and maintenance of two kinds of balance in economic affairs are essential to the creation of a maximum market.

The first of these kinds of balance is between the prices and rates of different industries. If, for example, the prices of other industries become too high compared with the prices that farmers can get for their products, the purchasing power of farmers, and therefore the farm market for the products of other industries, are restricted, with resulting restriction of production and employment in all other industries.

The second kind of balance required to create a maximum total market for goods and services is balance between the payrolls and the profits of each separate industry. Large purchases of consumption goods and of consumers' durable goods (such as housing and automobiles) by wage-earners are necessary to high level production and employment. But large purchases of durable goods by industry for the maintenance, improvement and expansion of its plant and for the building of housing intended to be sold or rented are equally essential to high level production and employment; and how much buying of durable goods for these purposes is done by business is determined by the current and prospective profits of business.

Ruinous Inflation Could Result

The foregoing seemingly plain economic facts are ignored by those who not only emphasize the importance of maintaining or increasing the purchasing power of members of labor unions, but who contend that this one-fourth of those who work can and must be provided with adequate purchasing power by reducing their hours of work, by largely increasing their hourly wages, and by subsidizing those with low incomes at the expense of the taxpayers. The results would be reduction of the production and increases in the production costs and prices of all the goods and services that this one-fourth of the workers were employed in producing. And this increase in the prices of what was produced by the one-fourth would, of course, reduce the purchasing power of the other three-fourths. That is, this would be the effect unless similar measures were adopted to reduce the production and increase the incomes of the other three-fourths, in which case we should have reduced production and higher prices of all goods and services—which is one way of saying that we would have inflation and reduction of the purchasing power of everybody, and not improbably uncontrollable inflation that would ruin everybody.

Courage is the principal quality that public men and managers of business need to show now in order to serve the nation—courage to resist as strongly as possible the pressure for policies intended by their economically illiterate promoters to benefit one-fourth of the people at the expense of the other three-fourths of the people, but the adoption of which would be disastrous to all the people.

Public Misunderstanding of Railroads' Competitive Policy

It was a timely letter which John J. Pelley, president of the Association of American Railroads, wrote last week to President C. R. Smith of American Airlines, challenging a statement attributed to the airlines executive in which the railroads were accused of seeking "to shackle aviation with restrictive legislation" and of harboring the ambition to establish "sectional monopolies of transportation" under railroad control (*Railway Age*, November 24, page 873). This irresponsible accusation has been uttered repeatedly by politicians and by spokesmen for commercial aviation and highway transportation, too often with no effective refutation from the railroad industry.

Whenever this false representation of the railroads' position appears, it ought to be scotched. It is difficult, however, to turn away such a positive and specific indictment as this one, merely by insisting that it isn't true. The fact is that railroad policy toward other types of transportation, while tolerant and cooperative in practice, is nowhere set forth conveniently, comprehensively and emphatically in language so clear as to put the railroad position on these questions beyond cavil.

Clear Statement of R. R. Policy Needed

It would be to the railroads' advantage if the public were given a lucid and convincing understanding, unshakable by such accusations as the one Mr. Pelley has challenged, to reflect the fact that the railroads do not covet the traffic of other agencies of transportation, wherever these other agencies have an inherent economic superiority; and that, instead, the railroads seek nothing more (and also nothing less) than an equitable political environment for the entire transportation industry which will encourage each item of traffic to flow without arbitrary disturbance to that agency naturally best fitted to handle it.

The air would be cleared of a miasma of continuing misrepresentation and dangerous misunderstanding if a positive, unequivocal and widely publicized statement were made by the railroads—setting forth from the viewpoint of the public interest in economical transportation and in the maintenance of an adequate national transportation system the principles which the railroads believe must be observed in the regulation, taxation and "public aid" of all transportation agencies. Such a statement also could well include a clarification of the railroads' position on the matter of their ownership of other types of transportation, specifically repudiating the ambition to monopoly or even toleration of it; and explaining how the addition of a "department store" transportation service would enlarge the customer's range of choice, and hence promote rather than curtail competition.

A statement of this kind would not be of much value if it were couched in abstract and general terms. To accomplish the purpose of creating public understanding of the railroads' position on these questions, and to establish the identity of the public interest with the railroads' position, the expression would have to be quite specific. Since railroad men's views of these questions, while similar, are not identical, it might not be possible for them to agree unanimously on a statement which would avoid undue generalization. In that event, it would probably be better to issue a statement signed by the substantial majority of companies which could agree to it, rather than to purchase complete unanimity at the price of indefiniteness.

The railroads have now had the benefit of two opinion surveys to remove any possible doubt that predominant public opinion is lacking in understanding of the economics of transportation competition, and in appreciation of wherein the public interest lies in assuring that such competition be equitable. This lack of understanding is bad enough by itself—precluding, as it does, the likelihood of prompt correction of the railroads' present handicaps—but the confusion of opinion has even more serious implications in that it offers a fertile field for the propagation and dispersion of malicious and unfounded charges of railroad ambitions to "monopoly," and to "restriction" of their rivals.

The actual policy of the railroads toward other forms of transportation, as shown by deeds rather than words, recognizes an important place for these other agencies in the nation's over-all transportation picture. That is to say, the railroads' actual policy is not merely a negative one of defending their own position, but is friendly to the development of other agencies wherever they are more economical than rail movement—as is evidenced by the railroads' use of these other agencies, in spite of political handicaps to such coordination. It is rare, these days, when the behavior of either individuals or institutions is more consistently public-spirited than they lay claim to. Isn't it time for the railroads to resolve this paradox, making their words as emphatic as their deeds?

Section vs. Extra Gangs

There has been a tendency in recent years for the railroads to depend more and more on extra gangs for much of their track work. The extra gang, of course, is a necessary organization for completing large raillaying, surfacing and re-ballasting programs, and the trend toward the greater employment of such gangs has been stimulated by the development of many units of work equipment that are particularly suited to their use. This trend toward extra gangs has gone so far, however, that some roads have seriously considered abolishing section gangs and using, instead, medium-size and large floating gangs for all track maintenance work. In fact, this has already been done to some extent on several roads.

The principal advantage derived from the employment of extra or floating gangs is that these gangs can use most units of work equipment to better advantage than section gangs and can be organized to do their work on a production basis. With such an organization, each man becomes highly proficient at his assigned task and, with proper supervision, much waste motion is eliminated. However, large gangs cannot be assigned economically to small jobs, for the time lost in moving frequently from one job to another quickly offsets any advantages to be gained through their use.

The principal advantages of the section gang, on the other hand, arise from its ability to obtain resident labor—including men with families, for whom housing need not be provided—who, because they live near their work, have greater responsibility, pride of workmanship, availability, and knowledge of each section. Because a good section foreman knows his territory intimately, he will, on his own initiative in addition to carrying out his regular program of maintenance work, remedy chronic troublesome conditions before they become serious. Furthermore, the section gang is always on hand to patrol the track during storms to make sure that it is safe for the movement of trains.

All of these factors were mentioned recently by the chief engineer of a small but important Class I railroad, who confided that the vice-president in charge of operation on his road had suggested doing away with section gangs and substituting extra gangs or large floating gangs for all maintenance work. This chief engineer contends that his railway has much to gain by keeping its section gangs, especially because of the excellent class of section labor available on his road, which assures a higher quality of work than could be expected from less stable extra gangs. He believes the elimination of section forces will result in loss of present good track labor.

With the railways building a more sturdy and stable track structure, further developments in track motor cars, and the use of highway trucks under certain conditions for transporting men to and from work, the trend of the past decade toward longer track sections will probably continue. This will make the regular section gangs larger, enabling them to organize their work better and to use power tools more effectively, thus making possible some of the advantages to be found in the larger extra gangs, but without losing the recognized advantages inherent in section gangs.

There is no one best answer to this question as to the most suitable track maintenance gang organization for all conditions. Any change in organization of forces should be made only after the most careful consideration of all of the factors involved, and possibly from a subdivision standpoint, on large roads at least, rather than from the standpoint of the system as a whole.

What of Nuclear Energy?

With the news of the explosion of the experimental atomic bomb in New Mexico on July 16, and the destruction of Hiroshima and Nagasaki, Japan, which followed within a month, the world suddenly became aware that nuclear energy was no longer something with which scientists dealt in their laboratories in the minutest of quantities, but a giant capable of crushing civilization and even life from the face of the earth. Because its first practical application was as a military agent of destruction, a function which it fulfilled with appalling effect, its Frankenstein quality has ever since remained uppermost in the popular mind.

But along with this aspect of the new development there is beginning to be speculation among laymen and engineers alike concerning the possibilities for useful service which this new source of energy in quantity offers, provided it can be released under control and within a practical range of cost. Among the possibilities for useful applications are the increased opportunities which a plentiful supply of radioactive materials offer for further scientific research and perhaps for the treatment of certain diseases. But these are mere byproducts of the process wherein energy in vast quantities is released and it is the further prospect of being able to tap this energy as a source of power which is most subject to speculation.

The official Smyth report on the scientific research and technical development which went into the making of atomic bombs is an amazing story of an application of science and engineering, the like of which was never told before. Almost as soon as the discovery of the ability to split certain atoms, accompanied with the release of large quantities of energy, was made in 1939, scientists began to think of the possibilities which a further investigation of this process might offer for the development of a military engine of destruction. Beginning in 1940, through a series of studies, organizations for further research, and successive reorganizations, always expanding as laboratory results gave encouragement to the hope of ultimate success, an advance in nuclear physics which would normally have required a generation—perhaps much longer—was compressed into the short period of five years.

Then, in the middle of the theoretical and laboratory studies there began the development of a vast industry for producing the necessary quantity of active material for loading the bombs. Plants were actually under construction before some of the scientific data required for their completion and operation had been determined. The outlay, measured in billions of dollars, could be justified only on the grounds of military necessity.

What are the prospects for the utilization of nuclear energy as a source of power? Considering the nature of the process as it is known today, there seems little likelihood that it will have direct application on a large scale for some years. Indeed, the process of producing the active material as it stands today will need much refinement and the problem of bringing the ultimate energy release within docile bounds will have to be solved. Furthermore, this development will no longer proceed at the tremendous rate which prevailed during the past five years. Its ultimate value to society would scarcely justify the cost of an effort of any such intensity.

If and when such a development does occur, the tremendous release of radioactivity inherent in the process must be confined by shielding—a circumstance which probably precludes its application in mobile power plants. How much and when advancement of the new science may change these circumstances is not a subject for safe prediction. Should there be further scientific developments, the necessary engineering developments for their application are not likely again to be made simultaneously as was the case with the atomic bomb.

At least, it is a comforting thought that when our coal and oil supplies have been exhausted, there is something in sight to fall back on.

Drives Shotcrete-Encased Piles

Southern uses a novel method to safeguard waterfront foundations against the attack of both teredo and limnoria

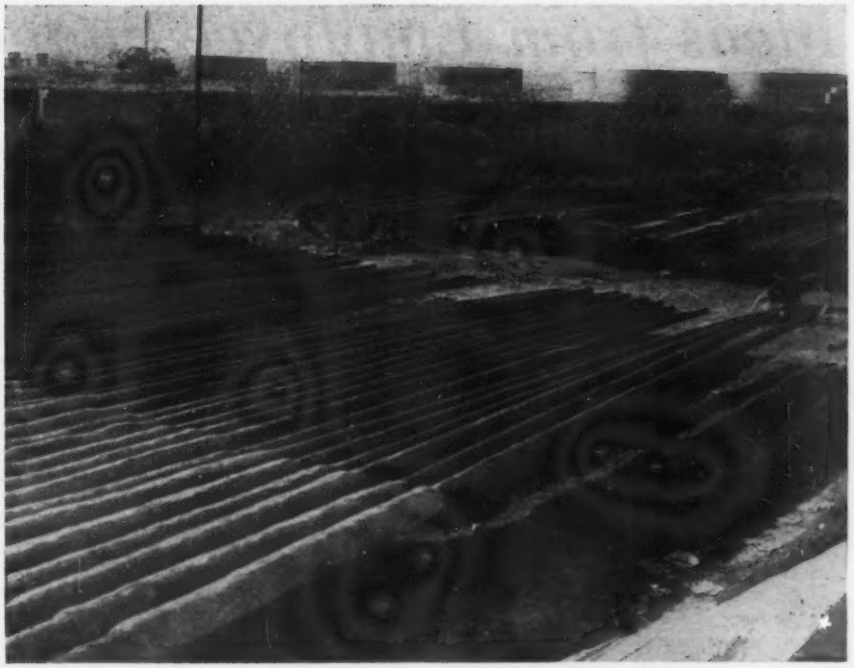
BECAUSE of severe marine borer infestation in the pile foundations of two of its waterfront piers, the Southern has recently redriven a number of piles, pre-jacketed with concrete, in these foundations. These piles were preframed and given a creosote treatment, following which they were jacketed with reinforced shotcrete, before being driven, to protect them against both teredo and limnoria. In only one case was the jacket damaged in handling or during driving. The cost of pre-jacketing the piles was much less than the cost of jacketing them in place, and it is believed that the shotcrete jackets will protect the piles much more effectively.

Trouble with Limnoria

Early in the life of the waterfront structures, the problem of marine borer attacks on the piles of their substructures became the cause of much concern and expense for repairs and renewals. As early as 1921, it became apparent that protection of the piles against the attack of limnoria would be necessary to obtain a reasonable length of life from them. Many piles had to be replaced, and later many piles were jacketed with concrete to protect them against this type of marine infestation. These concrete jackets were poured in place below the water line and extended from a point two feet below mean low tide to one foot above high tide, the area most subject to limnoria attack. The work of jacketing the piles was done by the Hay method, which employs a patented form, so designed as to allow the placing of the concrete casing around piles to any depth. Most of the work was done necessarily at low tide and was slow and expensive. The jacketing program was continued year after year, until finally all piles exposed to sea water had been jacketed. This protection, however, had two disadvantages; in the first place, the concrete was not reinforced, and secondly, it was placed after the piles had been exposed for some time to marine borer infestation.

Later, teredo were reported as attacking the piles of both structures below the jacketing, down to the mud line, and a few years afterward it was discovered that this condition was becoming serious. By September, 1942, the limnoria and teredo together had eaten entirely through some of the piles, in spite of the jackets, and inspection revealed a generally unsound condition of a large number of other piles.

In 1943 a decision was made to renew all piles except those which had several years' more life. The piles were to be creosoted throughout and protected with concrete jackets, which were to extend from one foot above high tide to approximately five feet below the mud line. At the same time, it was planned to pull or break off all old piles so that the source or breeding places of the borers would be eliminated. This was considered important.



A Group of Piles with Concrete Jackets—Workmen in Background Are Applying Reinforcing to Other Piles

It was known that some work had been done by the U. S. Army Engineers at a West Coast port, and by the Port of Tacoma, Wash., 25 years ago, in driving untreated piles which had been given a thin shell of shotcrete before driving, and it was decided to follow essentially the same method in the pier work, except that the piles were to be preframed and given a preservative treatment of creosote before applying the shotcrete. It was believed that the cost of the shotcrete jacketing would be considerably less than in-place jacketing, and that much more satisfactory results would be secured.

Shear Locks

To anchor the shotcrete shell during driving, a series of cylindrical notches, 4 in. diameter by 1 in. deep, to act as shear locks, were drilled in the piles. Four such notches, spaced 90 deg. around the pile, were drilled 12 in. from both ends of the jacketed sections, and on the remainder of the area of each pile to be shotcreted two notches were drilled opposite each other every 12 inches, with each succeeding pair of notches rotated 90 deg. around the pile in relation to the preceding pair. After notching, the piles were treated with creosote to refusal.

To apply the shotcrete jackets, the piles were placed horizontally on skids, so spaced as to minimize bending of the piles. For reinforcing, the length of each pile to be jacketed was wrapped with 2-in. by 2-in. by 12-gage galvanized wire mesh, which was lapped 6 in. This reinforcing was held securely in place, ¾ in. from the surface of the pile, by means of specially-designed brads of 14-gage mild steel. At the ends of the wire reinforcing, each pile was wrapped with six turns of No. 9-gage galvanized wire, which served to pull the reinforcing in, and also to provide extra reinforcing at this point.

Applying the Shotcrete

The concrete was applied with a pneumatic gun by rotating each pile before the gun until the concrete was deposited to the desired thickness of 1½ in. After placing the shotcrete, the piles were wrapped with burlap and were cured by being kept wet with a water spray for four days. Following this, the burlap was removed and the concrete was coated with an asphalt emulsion to help it retain its moisture and thus aid in its further curing. It was also thought that the asphalt emulsion will assist in retarding disintegration of the jackets.

The reinforced jackets, which varied in length from 16 ft. to 43 ft., stiffened the piles materially. To handle the jacketed piles a locomotive crane was used with a two-point pick-up. The piles, some of which were 80 ft. long, were driven by a floating pile driver with 75-ft. leads and a No. 1 Vulcan single-acting hammer having a 5,000-lb. ram. They were driven without difficulty and, of those pre-jacketed, the jacket of only one was damaged in handling. Part of the pre-jacketing was done by railroad forces and the remainder was done under contract by the Pressure Concrete Company, Newark, N. J.

TOP LEFT — A Group of Piles with Reinforcing in Place, Ready to Receive the Shotcrete — Note Shear Locks in Pile in Foreground AT LEFT — Showing Application of Shotcrete Jacket to a Pile

Ideas from Employee Suggestion Systems

A presentation of the advantages of the systems in use on railroads with a total of 382,000 employees and a discussion of the machinery of administration

THIS report is the result of a study of the so-called "Employee Suggestion Systems" in operation on railroads. In the process of collecting this information, questionnaires were forwarded to those railroads which, according to our best information, had such systems in operation. These questionnaires requested information on: (1) The type of system; (2) how sponsored; (3) brief description of its working; (4) title of officer supervising the system; (5) how suggestions are screened; (6) how accepted suggestions are tried out; (7) basis of awards; (8) maximum and minimum awards paid; (9) total number of employees eligible to submit suggestions; (10) average total suggestions received per month; (11) average total suggestions accepted per month; (12) estimated annual administration expense and savings; (13) how any patent expense is defrayed; (14) ownership and other patent arrangements; (15) difficulties experienced, and (16) benefits derived.

The detailed information received through these inquiries is of a confidential nature and in our discussion, therefore, no mention will be made of the individual railroad whose data or other information are quoted.

The total number of employees eligible to submit suggestions, as reported by those companies from whom replies were received, was 382,033. The same companies reported a monthly average of 10,813 suggestions received. The total monthly average number of acceptable suggestions received was 2,685. The average length of time during which these systems had been in effect was 8 years 4 months. It will be observed, therefore, that the experience analyzed by the committee was sufficiently extensive to afford some broad conclusions to be drawn. This, we believe, is true with the exception of two pertinent questions, namely the cost of administrating such a system and the savings which might be expected. No company to which the questionnaires were addressed offered any information thereon.

Without exception each of the companies whose systems were studied are using what might be termed an anonymous system. This term is derived from the fact that a bona fide attempt is made to prevent any partiality on the part of the judges responsible for accepting or rejecting suggestions by providing that all suggestions submitted carry no reference to the name of the employee making the submission. This is accomplished either by having all ideas submitted on standard numbered forms, the employee retaining a stub having the same number, or by the submission carrying only the employee's check or payroll number. Thus when the merits of the suggestion are under discussion, the committee has no knowledge of the identity of the originator.

Machinery of Administration

The general machinery set up to administer these systems is as follows:

At the head of the so-called system is a supervisor, or manager, who has general supervision over its entire functioning. Under him is a general committee. This committee is usually composed of department heads, or their selected representatives, and an equal number of representatives from the labor groups. This committee is the body which has the final decision as to whether suggestions are acceptable or not. It has regular meeting times and is supposed to be furnished with copies of the current suggestions sufficiently in advance of the next meeting to give it an opportunity to check for duplications and to study the merits of each. It likewise fixes the amount which is to be paid for each acceptable suggestion.

In the case of larger companies, local joint management-labor committees are set up. The function of these local committees is to "screen" those suggestions submitted by employees in certain local areas or shops. This committee ordinarily does not have the final decision as to acceptance, but does have power to reject any obviously impractical or unsound suggestions. Neither does this local committee have a voice in deciding the amount to be paid for a suggestion. Its function is to pass on to the general committee for final action such suggestions as are, according to its judgment, worthy of further consideration.

Further than the above, the system provides media for keeping employees interested and some simple method of getting suggestions before the appropriate local or general committee, such as providing necessary forms, use of company mails and/or suggestion boxes located at convenient places from which regular collections are made.

It was found in our study that the practice exists universally of dividing suggestions into two categories—those from which tangible savings can be expected, and those from which no tangible saving can be expected. Minimum awards for accepted suggestions which fall in either category have usually been established as $5. Maximum awards are made on a different basis for suggestions in both categories. It is almost the universal practice that the award for an accepted suggestion from which tangible savings can be expected is on the basis of 10 per cent of the estimated annual savings. In making awards for suggestions from which no tangible saving can be expected, the award has been entirely dependent on the judgment of the general committee as to its value. Maximum rewards ranging up to $2,605 for a single acceptable suggestion were reported.

All suggestions received are considered the property of the company, after awards have been made to their originators. Such suggestions as are patentable, and if in the judgment of the company it is desirable to do so, are patented. In these cases the company defrays reasonable expense of search and patent proceedings, obtaining the patent in the name of the suggestor in exchange for a license agreement covering its use by the company. This arrangement seems to have worked out satisfactorily to all concerned and no controversies were reported to have arisen between the parties.

Reported Difficulties

On the other hand, it is apparent that other features in connection with suggestive systems have been troublesome. One road reported having dropped the idea because of "spotty" employee response and waning interest and enthusiasm. Other reported difficulties were:

A tendency on the part of some supervisors to feel that a suggestion from anyone relating to his department is a reflection on his ability and methods.

A tendency on the part of some labor organizations to discourage their members from submitting suggestions which might result in reducing man-hour requirements.

A failure to allow the general committee sufficient time and opportunity to determine the merits of a suggestion before having to establish an award for it.

The inability of the general committee to make an accurate forecast of the annual savings and being faced with the

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This article is an abstract of a report of the Committee on Employee Relations, Locomotive Maintenance Officers' Association. The members of the committee are F. K. Mitchell (chairman), assistant general superintendent motive power and rolling stock, N. Y. C.; C. F. Brooks, mechanical engineer, Erie; K. Berg, superintendent motive power, P. & L. E.; W. V. Honerman, assistant to superintendent motive power, C. & O.; H. J. Schulthess, chief personnel, D. & R. G. W.; A. H. Williams (retired) and Roy V. Wright, managing editor, *Railway Age*.

necessity of making an on-the-spot decision as to the amount of the reward.

Advantages of the Systems

Despite the difficulties which have arisen, the majority of reporting roads and companies consider that the benefits derived from the suggestion system far more than offset them. Some of the advantages stressed in the reports were:

Improves employee relations by establishing a feeling that the employee is a part of management.

Increases the employees' interest in their work.

Encourages initiative, observation, analysis and constructive thinking by providing a channel through which ideas pertaining to the employees' work can be submitted without fear of criticism.

Provides financial benefit to both employer and employee.

On the strength of the foregoing, the committee feels that the adoption of an employee suggestion system might be anticipated to produce results, both positive and negative, in the locomotive department somewhat along the following lines:

You might expect to receive suggestions from about three per cent of your employees each month. This ratio would be higher to start with and taper off to about that figure.

Of the suggestions received you might expect about one-quarter to be acceptable. This ratio would probably start lower and increase to about that figure as the employees gradually learn the type of suggestion which is worthwhile.

You might expect that at the outset a large number of suggestions would not be suggestions at all but rather grievances expressed through the media of the suggestion system. Further, however, you might also expect a recession of this type of so-called suggestion, but not a cessation of them, as time went on. We believe that if you adopted a sensible, fair method of disposing of this type of problem during the "screening" process, very few grievances would eventually be advanced through these channels.

You might expect opposition from some supervisors and some labor representatives. Opposition from the first group might be due to jealousy and a feeling that any such suggestions are a reflection on the supervisors in the departments from which the suggestions come. Diplomatic handling of this matter would be necessary, but effective in eliminating it. You might expect that opposition from the second group would arise due to a fear that, through the adoption of certain suggestions, management might take advantage of them to reduce employment. This poses a real problem, for there is no contradicting the fact that such a thing might occur. This, however, may be offset by the fact that greater efficiency in railroad maintenance and operation will strengthen the railroad in its spirited competition with other types of carriers —some of which are at least partially subsidized—and thus insure greater stability of employment for railroad employees.

You might expect objection on the part of both supervisors and men to the method of establishing awards for suggestions capable of producing tangible savings. Establishing such awards on the basis of estimated annual saving is, we believe, not fair to either the company or the employee. We gather from the data reported that this basis was adopted in order to avoid the necessity of setting up the necessary machinery for determining the actual saving produced. This conclusion is based on the repeated statement that no estimate of the total annual savings produced by the employee suggestions system could be given because no procedure had been set up to produce that information.

We hold that no committee, regardless of the experience and background of its members, can forecast the annual saving which any suggestion may produce, this being particularly true where a decision must be reached within a few days or weeks after the suggestion comes to their attention and before it has been given actual trial. We further hold that in this consideration, as in all others, if a job is worth doing at all, it is worth doing right, and that therefore the actual annual saving should be developed by trial before the final award is made, even though this means off-setting the total saving by the clerical and supervisory expense necessary to establish the actual saving over the period of a year.

By so doing, a guarantee to management that it is not paying for a saving which might actually be far less, or even a loss, and a guarantee to the employee that his award was commensurate with its actual merit would be established. We would, therefore, suggest that the objection under discussion could best be met by payment of a lesser initial award, augmented at the end of a year by a fixed percentage of the actual saving.

Finally, the committee feels that if the objections it has pointed out are overcome, either as recommended by us or in some other satisfactory manner, and a system in all other respects the same is kept honest, open and above criticism, the motive-power shop and terminal operations will be benefited by the adoption thereof, which in turn means that the road as a whole will reap the benefits which have been mentioned.

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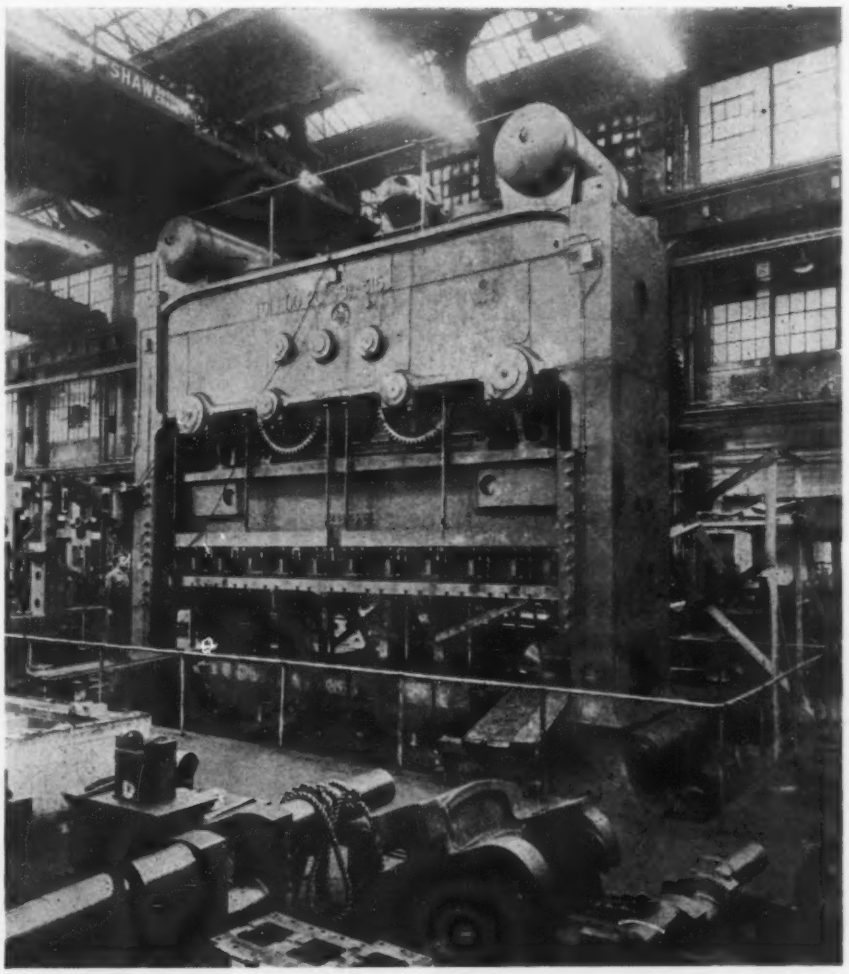

It Took 15 Freight Cars to Carry This Rail Press

This 1,500,000-lb. rail press, recently shipped to Russia by the E. W. Bliss Co., of Brooklyn, N. Y., can form two chassis frames from blanks every 10 seconds. Box car ends and freight-car center sills are also pressed with the proper dies at the same rate of production.

Toward a National Transportation Policy

The editors of *Railway Age* give their answers to practically all the questions on which Chairman Lea of the House Interstate Commerce Committee is seeking counsel

Hon. Clarence F. Lea,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives,
Washington, D. C.

DEAR CHAIRMAN LEA:

You have been kind enough to address several of the editors of *Railway Age* and officers of the Simmons-Boardman Publishing Corporation, asking for expressions of our opinion on questions germane to the consideration being given by your committee to desirable changes in our nation's policy toward transportation.

We believe that your inquiry is a matter of highest national importance, since we are certain that the evidence to be laid before you will convince you and your colleagues that a grave danger threatens this country from its present inadequate, unrealistic and uneven dealing with the transportation industry.

While you have stated that "no one need discuss all these subjects"—i. e., those specified in your printed list—the fact is that few of your questions cover matters which are not topics of constant observation and study by the officers of the Simmons-Boardman Publishing Corporation and the editors of its several railway papers. We are, therefore, submitting our answers to practically all the questions which you raise.

There are many people who offer what they believe, sincerely enough no doubt, to be solutions to the nation's "transportation problem," but which deal only with segments of the problem. Thus some may tell you that what is needed is "more modern equipment," or "higher wages," or "more superhighways," or larger federal appropriations for airports—but anyone with proposals dealing with only a small part of the transportation industry ought to be prepared to discuss for you the effect of what he suggests on the health of the transportation industry as a whole—because, unless his primary objective is the welfare of the transport system as a whole, you can have no assurance that the "solution" advanced for a part of the problem may not actually make a genuine solution of the problem as a whole more difficult than ever.

As an analogy, if a family is in distress, a palliative to its condition might be found if some philanthropist would buy all the children a new outfit of clothing. On the other hand, a permanent solution to the family's misfortune is more likely to lie in finding a steady job for the father. Playing the philanthropist to the children might, thus, actually injure the long-run well-being of the family rather than advance it. Our suspicion is that too many of the "solutions" which have been proposed for the nation's transportation difficulties are comparable to such short-sighted philanthropy, i. e., that what is labeled "federal aid" to transportation might often with greater accuracy be called "federal harm."

But, to get on with answers to your specific questions—

I—National Transportation Policy

It is sometimes stated that we have no national transportation policy.
(*a*) Is that criticism directed at the statement of such policy in section 1 of the Interstate Commerce Act, or is such criticism justified by failure to implement the declaration of policy in that section?
(*b*) In what respect, if any, by law or administrative action, are there failures to implement that section?
(*c*) If so, what remedies would you suggest?

The statement of "national transportation policy" in the Interstate Commerce Act establishes as goals (1) the recognition and preservation of the "inherent advantages" of each of those modes of transportation subject to the Act; (2) the promotion of "safe, adequate, economical, and efficient service" and the fostering of "sound economic conditions in the industry and among the several carriers"; and (3) the "developing, coordinating, and preserving of a national transportation system." These statements set forth with adequate comprehensiveness the *objectives* of a realistic national transportation policy.

When it comes to *means* of realizing these far-reaching objectives, however, the Act limits itself merely to regulating the rates, service, and other practices of the railroads—with similar but less comprehensive regulation of some but not all common carriers by highway and water. Since private carirers by highway and water are not amenable to rate regulation and since some common carriers and all contract carriers are specifically exempt from rate regulation, the result is that, probably, not more than 10 per cent of the total of highway and water traffic is subjected to regulation of a degree in any way comparable to that applied to the railroads. Carriers by air are regulated, but by an entirely different body (the Civil Aeronautics Board) from that (the Interstate Commerce Commission) which regulates rail, highway, and water carriers—and the air transport regulatory body has no statutory duty laid upon it to coordinate, preserve, or otherwise give any thought to the welfare of the national transportation system as a whole.

It is submitted as self-evident that the proclaimed objective of sound economic conditions "among the several carriers" is impossible of attainment by means of regulation alone, so long as a substantial part of the transportation industry is exempt from regulation and/or is not amenable to it; or is regulated by an independent regulatory body with no responsibility to safeguard the well-being of the national transportation system as a whole.

Govt. Is in This Business

The relationship of government to transportation is not limited, however, to regulation. *Government itself is the largest single interest actively engaged in the transportation business*—arising from ownership by federal, state and local governments of highways, waterways, and airports. The investment represented by such transportation property in public ownership undoubtedly exceeds the depreciated value of all automotive vehicles (including private passenger automobiles) in private hands today. Outlays on government-owned transportation plant unquestionably surpass the combined private investment in railroads, coastwise and inland waterway vessels, and commercial airplanes. Transportation, when gaged from the standpoint of capital invested, has become about as much a matter of public enterprise as of private enterprise.

As the owner of practically all the fixed plant used to provide highway, waterway, and air transportation—government itself is the largest of any of the competing segments of the transportation industry; and none of government's acts as a participant in the transportation business are made subject to the "fair and impartial regulation" which is exercised over similar acts by the private enterprise part of the transportation business.

It is provided in the Interstate Commerce Act that no new line of railroad may be constructed until "fair and impartial regulation" has certified that the project will serve the "public conven-

ience and necessity" (Sec. 1 (18)). As a matter of practice, the regulatory agency requires proponents of new railroad construction to demonstrate that the additional facilities it wishes to provide are actually in economic demand, to the extent that probable earnings of the venture will meet all costs, including a reasonable return on capital.

No such impartial and expert scrutiny is exercised over the government competitor in transportation—to insure that each new waterway, highway, or airport which government adds to national transportation plant will actually serve the "public convenience and necessity"; and that it will yield revenue at least sufficient to cover all costs.

Discrimination

It is further provided in the Interstate Commerce Act that a regulated carrier must maintain "just and reasonable charges" for the services it offers and avoid "unjust discrimination" in such charges. In usual practice, the regulatory agency seeks to prohibit not only those charges which are at excessive levels above the cost of service, but also those which are plainly less than service costs.

No such impartial and expert control is exercised over the government's participation in transport competition—to forbid its levying charges upon the users of its services at levels which are unduly high or improvidently low. There is no impartial regulation to prevent discrimination in charges levied on different classes of users, and no means is provided for removing such discrimination if it were found to exist. As a matter of fact, the governmental competitor in transportation gives away the service of its waterway plant absolutely free to anybody or to any enterprise—the railroads alone excepted. Also as a matter of fact, charges for the use of highways and airports vary widely for comparable facilities from state to state; there is applied no uniform principle for the determination of charges, comparable to that enforced by regulation for the use of railroad property. The government rigidly enforces a system of ethics and economics in the pricing of the use of private property for transportation purposes, and refuses to obey this economic and ethical system in the pricing of the service of competing government-owned transportation property.

From the foregoing recital of generally known facts, it is self-evident that economic conditions "among the several carriers"—announced as one of the goals of national transportation policy—can be attained only by accident or coincidence under the present dispensation, with the largest competitor in the transportation business (i. e., the government) not subjected to any of the regulatory regimen to which the only other large owner of fixed transportation plant (i. e., the railroads) is required to conform.

The fixed plant of the transportation industry is by far the most important part of it. The present value of all privately-owned automotive vehicles in the country is probably not over $26 billion, while the investment in the highway system is certainly not less than $40 billion. The railroads have an investment of $17 billion in roadway, compared to only $8 billion invested in equipment. The investment in governmentally-owned airports in New York City alone far exceeds the private investment of all the nation's commercial airlines.

This predominant part—the fixed plant—of the nation's transportation system is divided among two principal "landlords," (1) the railroads (and, also, in relatively small measure, the pipe lines) and (2) the government (federal and local). The railroad "landlord" is minutely controlled to prevent him from wasteful expenditures; he is required to pay large sums in *ad valorem* taxation; he is forced to fix his charges with some relationship to his costs. The governmental "landlord," on the other hand, is subject to no control over his expenditures except that provided by the vagaries of legislative action; he pays no *ad valorem* taxes; his charges to his tenants vary widely and are as low as zero; and these charges are not bound to conform to any principle which relates them dependably to the cost of the property the government provides.

Your Question No. I may, therefore, be answered as follows:

(a) The nation has a "national transportation policy" which is adequate as far as objectives are concerned, but inadequate almost to the point of non-existence when it comes to providing means to attain the announced objectives.

(b) The "national transportation policy" is not adequately implemented to the extent that it fails to provide regulatory control over governmental expenditures on transportation plant similar to that exercised over transportation plant in private ownership; and in that it fails to insist on charges for the use of transportation plant in government ownership, based on the same degree of *ad valorem* taxation and the same relationship to capital and maintenance costs as private owners of transport plant are compelled to observe. As long as the two predominant parts of the nation's transport plant are constructed, financed, and taxed by methods so utterly dissimilar, it is self-evident that the "inherent advantages" of both parts are not being equally safeguarded; that "coordination" of the several agencies on a basis of their relative "inherent advantages" is impossible; and that sound economic conditions are not being fostered "among the several carriers."

(c) The "national transportation policy" can be adequately implemented to safeguard the national interest in the preservation of the "inherent advantages" of each form of transportation only if the conditions under which the fixed plant of the entire industry is provided and taxed are equalized.

Unless government participation in transportation is thus to be made self-supporting from charges laid upon its direct beneficiaries, there can be no equality or economic coordination among the several agencies of transportation. Unless government transportation property is to cease being a charge on general taxes, then comparable government aid must also be extended to the railroads. The "inherent advantages" of each agency of transportation cannot emerge unless the same degree of regulation, of self-support and of taxation is applied to each agency, regardless of whether its ownership is governmental or private.

II—Regulation

(a) Advantages and disadvantages of separate regulatory agencies for each mode of transportation.
(b) Advantages and disadvantages of a single regulatory body for all forms of common carriers, reporting directly to Congress.
(c) Should the Interstate Commerce Commission be reorganized in the light of present-day conditions and postwar transportation problems?
(1) If so, how? by changing its powers, it procedures, or the mechanics of its set-up?
(2) What would be the objects to be sought by such reorganization?
(d) The extent, if at all, to which any or all forms of common carriers should be exempt from the application of the antitrust statutes where the activities in question are under the supervision of the regulatory agency.
(e) To what extent should federal government agencies be given powers to promote activities of common carriers?
(f) To what extent and under what circumstances are differentials in rates as between different types of carriers warranted or desirable; or necessary in fairness to the carrier; or necessary to give the public the inherent advantag of each?
(g) What do you suggest to coordinate further our transportation agencies, both within the same types and as between different types?

(a) and (b) It is self-evident, for reasons set forth in our answer to your question No. I, that regulation of equal magnitude can be applied to all agencies of transportation only if the same regulatory act is applied to all carriers by one regulatory body. If the degree of regulation is uneven from carrier to carrier—as it must be if regulation is applied by separate regulatory acts or separate regulatory bodies—then the more severely regulated carriers will not have an opportunity, equal to that of the others, to display their "inherent advantages." Since the preservation of these "inherent advantages" is one of the principal objectives of the national transportation policy as adopted by Congress, it follows that a single regulatory body for all branches of the common carrier transportation business is highly desirable.

(c) There is, so far as we know, no complaint from interests which are actually engaged in providing transportation subject to regulation by the Interstate Commerce Commission or from the customers of such carriers that the commission requires reorganization "in the light of present-day conditions" or that

its powers or its procedures be substantially changed. Our own opinion is that regulation of the railroads in some respects goes into greater detail that is required in the public interest, and that the long-and-short haul clause should be repealed. We assume, however, that your question refers to proposed "streamlining" of governmental agencies, placing them under control of the executive branch. Such a step in the case of the Interstate Commerce Commission would, we believe, be retrograde —and it seems plainly illogical that an agency, the functioning of which gives general satisfaction to those most concerned, should be tampered with, merely to satisfy some theoretical concept of governmental organization.

(d) The anti-trust statutes are general in their application and, for that reason, obviously cannot provide as satisfactory a remedy for undesirable practices in the transportation industry as the Interstate Commerce Act which is directed specifically toward the correction of undesirable behavior in the transportation industry. Until comparatively recently, it had been generally assumed that the Interstate Commerce Act took precedence over the anti-trust statutes except for situations regarding which the Interstate Commerce Act was silent. Since such precedence of the Interstate Commerce Act has now been questioned, it would be logical, and is undoubtedly necessary, for Congress to make clear its intention in this regard—an intention which, heretofore at any rate, has clearly favored giving precedence for the Interstate Commerce Act.

(e) Our belief is that federal agencies have engaged in transportation promotion activities to a greater degree than is necessary or desirable—if the premise be granted that our country's social and economic organization is to be based upon free enterprise rather than socialism. Promotional activities by government agencies inhibit similar initiative by private individuals and companies, because the latter are reluctant to compete under the unequal competitive conditions which are usually established to favor the government agency where it may engage in rivalry with private enterprise. For example, private effort and capital have undeniably been discouraged from airport development in recent years by the prospect that such facilities in private ownership, having to pay taxes and be supported by fees from users, would face competition of rival facilities built by public funds. It is, therefore, an open question whether governmental promotional activities, actual or prospective, in behalf of air transport may not have delayed and hindered the development of air transportation more than they have advanced it.

On the other hand, it may be conceded that, from time to time, for military or other non-economic reasons, transportation promotion by government may be necessary. However, promotion of this kind as now practiced is carried on by specialized agencies which have no concern or responsibility for the health of the nation's transportation system as a whole. This, it is submitted, is economically unsound. It would not be in the public interest to give the railroads a one-sided development to the detriment of the national interest in the preservation of an adequate supply of, for example, highway and air transportation. Neither should these other agencies be promoted governmentally with no obligation on the promoters to take into account the effect of their activities on the continued supply of necessary railroad service.

It is submitted, therefore, that the promotional activities in behalf of any agency of transportation can be safely entrusted only to a governmental body which is, at the same time, given responsibility to foster the economic health of all segments of transportation. To the limited extent to which promotional activities by government may be necessary or desirable, such activities should be lodged in a body with equal promotional responsibilities for all agencies alike. This does not mean to imply that all agencies should, necessarily, be promoted to the same degree—but the promoters should be held responsible, primarily, for the health of the entire transportation system and only secondarily for the advancement of the special claims of any segment of the system.

(f) If the "inherent advantages" of each form of transportation are to be preserved, then on traffic which is potentially competitive between any two agencies, comparative rates should be based on comparative out-of-pocket costs of the two agencies (actual rates, of course, to be at least somewhat above these costs). The only justifiable exception to this principle would occur in a case where there was not sufficient traffic to support both agencies; in such a situation, that one of the two agencies which, if abandoned, would occasion the greater hardship to the public, should be permitted to make rates to compete for all the business (with out-of-pocket costs as a "floor"). There is no economic or other social justification for a regulatory or statutory requirement that different types of transportation with wholly different cost characteristics should be arbitrarily required to maintain equal rates, or that the rates of one agency should always be arbitrarily a certain percentage below or above those of another agency. Simple logic demonstrates that "inherent advantages" cannot be preserved if the various agencies are to be laden unequally with governmental restrictions.

(g) If "co-ordination" be taken to mean the use of several types of transportation, each type to move that portion of the load for which it has the most favorable "inherent advantages," then it follows that such coordination among the different types cannot be perfected until the capital of all of them is supplied on equivalent terms and until they are taxed and regulated equally. A runner in a race cannot show his "inherent" capacity to run, as compared to that of the other contestants, if he has to carry a 100-lb. weight and the others do not. To get an accurate notion of the relative merits of the contestants, all of them must run with the same handicap, or with none at all.

Because the burden of taxes, regulation, and self-support required of the various agencies of transportation is so unequal the coordination achieved among the different types is imperfect. The present situation encourages the several agencies to invade the kinds of service for which other agencies are, naturally, better fitted.

As evidence of the degree of coordination attainable by different and even competing enterprises when all of them operate under exactly the same governmental rules, it is not necessary to look any further than the railroad industry. In this industry, hundreds of separate corporations, frequently competitive with each other, freely exchange traffic and rolling stock; and a customer with contact with one of these companies is effectively served by them all. Traffic moves easily from one system to another with no delay; and a passenger, for instance, hardly ever knows when he passes from the property of one company to that of another.

Bringing all agencies of transportation—rail, highway, waterway, and air—under the same conditions of self-support, of regulation, and of public responsibility as are required of the railroads would lessen occasion for jealousies and suspicions among them and should tend to promote among all transport agencies a degree of coordination such as that which already prevails within the railroad industry.

Also helpful in the direction of coordination would be permission to a company engaged in one type of transportation to engage also in other types—so that a customer might have "department store" service from the transportation industry, in addition to the "specialty shop" variety which now predominates. A further advantage of "department store" service in transportation would be that the company providing it would not have any undue prejudice for or against any one type of service; and should tend to encourage customers to select the type most truly economic for the particular job to be done.

III—Finance

(*a*) Advantages and disadvantages of various means of financing transportation agencies —stocks, bonds, or other securities.
(*b*) Building up credit ability of common carriers for efficient and economic service.
(*c*) Building up reserves, need of and present practices.
(*d*) What are the postwar needs for new capital? How can they be met?
(*e*) What legislative or administrative remedies, if any, are needed to encourage private capital investment in the common carrier industry, on reasonable terms?
(*f*) Effectiveness of present bankruptcy procedures in reducing capital structures—advantages and disadvantages.

(a) Experience during the depression of the '30's indicates that the railroads, at least, cannot in future depend to any marked degree upon mortgage bonds to

finance fixed improvements. About one-third the mileage of all railroads went bankrupt because of too great confidence in bond financing in times past. Since the depression of the '30's, the railroads have rapidly reduced their bonded indebtedness, and, generally speaking, the credit of their bonds is now reestablished; but this condition could not be expected to persist if, once more, the volume of railroad bonded indebtedness should show a substantial increase. It follows that railroad fixed improvements can be effectively financed only directly from earnings or from the sale of stock. The amount of financing which can be done from earnings in normal times is, obviously, of relatively limited proportions. The amount of financing which can be done through the sale of stock, with railroad shares averaging as they do in a "bull market" only around 60 or so on the Dow-Jones index, is obviously also a meager amount.

The fact is that there is not now in sight a source of capital supply adequate to provide railroad fixed plant with sufficient improvements necessary to keep railroad service abreast with technological advancement and the needs of industry for efficient, modern railway service.

No Limit to Appropriations

There is no lack of similar funds for fixed plant for highway and waterway transportation, because such investments have their origin in the generosity of the taxpayers rather than in the confidence of private investors. Investment in waterway and highway facilities reached an unprecedented volume in the middle of the 'Thirties when the very strongest railroads could not have marketed any new securities whatever for fixed plant improvements.

In contrast to the financial problem of providing fixed-plant capital for the railroads, these carriers have little or no difficulty in financing all the rolling stock purchases they are disposed to make—and at very reasonable interest charges. The "equipment trust" method of financing also provides, or can be made to provide, ample funds for the vehicles used by all other forms of transportation.

(b) From the foregoing, it appears that the only serious financial problem of the transportation industry, from the standpoint of the public interest, lies in the inability of the railroads to finance extensive improvements to fixed property through the sale of stock. A reliable indicator of the magnitude of this problem is the Dow-Jones index of railroad stock prices, which has recently been in the neighborhood of 60 and has not been above 100 since early in 1931. Unless and until this index gets above 100 and stays there, the nation will continue to be faced with a mounting inadequacy of railroad fixed plant. Answers given under question No. I in this presentation show sufficient reason why low prices for railroad stocks persist; and unless Congress is disposed to correct these conditions, the time must come sooner or later when railroad improvements will have to be provided from the public treasury, in the same manner that highway, waterway and air transport facilities are now provided. The war experience has demonstrated that the nation cannot get along without first-class railroad facilities and, obviously, if Congress will not establish conditions to induce private investors to provide such facilities, then they must be provided at the expense of the public treasury.

(c) The railways have during the war years retired practically all early-maturing debt and have built up substantial cash reserves with which to initiate a program of post-war capital improvements. They have not accumulated reserves specifically earmarked to correct undermaintenance incurred during the war when it was impossible to secure materials and labor adequate to proper maintenance. The reason the railroads did not accumulate such reserves was that the Treasury did not permit them to make appropriate tax-exempt charges to operating expenses for this purpose. The problem of the railroads as far as reserves are concerned is wholly a matter of persuading the Treasury to allow them tax credits for charges for undermaintenance. Since other agencies of transportation have no "roadways" of their own to provide, and have few capital outlays to make except for rolling stock, which is comparatively easy to finance, it follows that they have no important "reserve" problems.

(d) and (e) From 1920 to 1930 the net capital investment of the railroads increased $5,888 million. From 1930 to 1940 there was a net *decline* in the railways' invested capital of $281 million. The net increase in capital investment from 1940 to the end of 1944 was only $545 million; yet railway freight traffic in 1944 was almost 80 per cent greater than in 1920 and 65 per cent greater than in 1929; while passenger traffic in 1944 was 104 per cent greater than in 1920 and 207 per cent greater than in 1929.

Reduced Funds for RRs.

The congestion on the railroads during the war years clearly arose from the lack of new net investment in the 1930-40 decade, a congestion which failed to become a disaster only because of the achievement of almost miraculous cooperation among railroad managements, the armed services, and civilian shippers and receivers of freight. It is evident that a repetition for another decade of a failure similar to that of the '30's in expansion and improvement in railway fixed property would invite a catastrophe on the next occasion when national necessity requires full production from the nation's industry. The average annual rate of the railways' net capital expansion in the 1920's was $614 million. Experience indicates that no expansion rate short of this is safe—but, in addition, the railways now need to make up for the failure of their investment to expand during the '30's. Our belief, therefore, is that the railways' needs for new capital during the next ten years will be double those of the 1920 decade; in other words, the railroads will need $1,228 million of new capital annually.

Such capital requirements can be met only if reasonable assurance of continued earnings can be given, with the effect of raising the average price of railroad stocks on the Dow-Jones index above 100, and keeping it above 100 for a considerable period—so that railroad managements will have sufficient confidence in the future to commit adequate outlays of new capital, both from earnings and new investment; and so that investors will be willing to supply the necessary funds, through the purchase of equity securities—which experience has demonstrated to be the only safe manner in which railroad capital expansion in fixed properties can be financed.

Where Will RRs. Get Capital?

The restoration of such confidence in railroad equities requires the establishment of an equitable and dependable policy by government covering the regulation, financing and taxation of government-owned transportation facilities, as outlined in the answer to question No. I herein. Not only are the railroads unequally regulated, unequally taxed, and unequally self-supporting at present, but there is no way of knowing that this inequality may not become infinitely worse at any time, since *no principle is acknowledged by government which limits in any degree the extent of its favors to users of government-owned transport facilities.* Private investors are hardly likely to make large commitments of irretrievable capital under prevalent conditions of such complete uncertainty.

It may be added, incidentally, that the war emergency revealed no shortage of highway or waterway transportation facilities, while railway facilities were taxed to the utmost. There was, to be sure, a shortage of highway *vehicles,* but this shortage was no more marked than the shortage of railway *vehicles;* while, all over the nation, there was excess capacity of highways and waterways, but none of railways.

(f) There is no question that the present bankruptcy law reduces railway capital structures drastically; the criticism lies in the "freezing out" of equities even from contingent claims on future earnings, based upon pure guesswork by the Interstate Commerce Commission that these equities have no earning power; guesswork, incidentally, which has been demonstrated in instance after instance to be fallacious. Such arbitrary expropriation of equity-holders' past investments is no way to restore the confidence of investors in such securities—a restoration which, as has been demonstrated in the foregoing, is necessary to the future adequate financing of the railroads from private sources. The so-called "Hobbs bill," without in any way weakening the soundness of reorganized companies, provides for correction of this unjust—and indeed farcical and irresponsible—treatment of equity-holders in reorganizations, and, in our opinion, the public interest requires the prompt enactment of this legislation.

IV—Common Ownership and Integration

(a) How do you regard consolidations, from the standpoint of—
(1) The credit position of the carriers?
(2) Maintenance of reasonable rates over wide geographical and economical areas?
(3) Savings in capital outlay and operations costs?
(4) Service to industry and the traveling public?
(5) Extending greater stability by uniting the strong with the weak carriers?
(b) What public policy should prevail as to common ownership, operation, and control of common carriers—
(1) Of the same type?
(2) Of different types?
(3) To what extent are the answers to these questions dependent on whether or not such controls permit, restrict, or eliminate competition?

(a) Consolidations of railroads should be a natural process, with initiative left entirely to the affected carriers—but such projects should, of course, be scrutinized by regulatory authority from the point of view of the public interest in each case. The economic position of the railroad industry being what it is, the primary test of the public interest in a proposed consodidation should be whether or not it promises a reduction in railroad operating costs, or, what is equivalent to the same thing, improved service to the public without increased costs.

(a-1) There are few proposed consolidations with which we are familiar which promise operating economies of a magnitude, from consolidation alone, sufficient greatly to improve the credit position of the railway industry. However, "every little bit helps;" and consolidations which have as a reasonably dependable outcome a reduction in expense or an improvement in service are justified and in the public interest even if, by themselves, they do not promise much in "solving the railroad problem" as a whole.

(a-2) If consolidation be looked upon as a device whereby uneconomical services in some areas can be "averaged out" by forcing other areas to pay rates higher than economically justified, then consolidation could be a device for depriving the railroad industry of an opportunity to demonstrate its "inherent advantages." This point strikes us as a poor argument for consolidation, and where it is the only evidence which can be found to justify consolidation, then the consolidation should not occur.

(a-3) The type of consolidation which promises the largest savings in operating expenses and capital outlay is that which involves carriers which are at least partially competitive and where, consequently, the proposal to consolidate is likely to encounter the greatest opposition. A limited amount of competition in the railroad industry is undoubtedly wholesome. On the other hand, the industry has many of the economic characteristics of a "natural monopoly"—and the too zealous enforcement of competition cannot fail to lead to increased costs; that is to say, to a denial to the public of the economies "inherent" in mass transportation by rail. Where there is only enough traffic to support one or two carriers in economical operation, and this traffic has to be shared among half a dozen competitors, it is obvious that the cost of transportation will be forced upward by such excessive competition.

There are areas in the country where competing carriers could be reduced by half without any serious loss of the benefits of competition, but with many benefits from the economy of a greater application of "mass production" technique.

(a-4) It is not possible to make a general statement to the effect that "consolidations will improve service to industry and the traveling public;" or, for that matter, to assert the contrary—because some consolidations will achieve this result and others will not. Each proposal should be weighed on its own merits.

(a-5) "Uniting the strong with the weak carriers" is a poor argument for consolidation, because it would deny to the public the "inherent advantages" of economical railroad service, in order to provide railroad service to sections where, perhaps, railroad service is not economically justified.

In sum, our opinion on railroad consolidations is that they are neither the panacea for all railroad ills, as some persons appear to believe, nor yet the unmitigated evil which they are considered to be by those who are unduly wedded to competition as a device for regulating transportation rates and service. Rather, in our opinion, the initiation of all consolidation projects should be left to the carriers themselves—to be approved or denied upon a finding of wherein the public advantage lies; but among such public advantages should *not* be included the desire of some purchasers of transportation service to have a half-dozen or more competitors after every piece of freight, regardless of the over-all cost of maintaining such an excessive degree of competition in an industry which has many of the cost characteristics of a "natural monopoly."

(b-1) and (b-2) The public interest requires that there should be genuine *price competition* (i. e., rates based, at least roughly, on comparative costs) between the different *types* of transportation. Unless such price competition exists, there will be no way for each agency to demonstrate its "inherent advantages;" and unless "inherent advantages" are reflected in comparative rates, the public will not be able to make an economic selection among the various transportation agencies which are bidding for patronage.

However, one of the alternative *types* of transportation service should be the "department store" type, which offers service by any type or combination of types. So long, as at present, no company is permitted freely to offer all types of transportation, the public is denied an opportunity to test the merits of a combination of service which, possibly, many would find more convenient and economical than the strictly "specialty shop" rule of service which now obtains.

It would, doubtless, be contrary to the public interest if "department store" transportation companies were permitted to run all the "specialty shops" out of business. By the same token, it is undoubtedly equally contrary to the public interest that "specialty shop" transportation should be permitted to prevent the public from the opportunity, even, of an experiment with "department store" service.

(b-3) The provision of "department store" transportation would not reduce competition but would enlarge it by giving the public another competitive alternative which it is not now offered.

As to extending permission to one carrier to control another where such control would eliminate competition—the criterion should be the number of carriers which the available traffic can support. If there is only enough traffic to provide a volume which will enable one or two carriers to operate economically, then artificially to require the services of three or more will, obviously, increase the cost of transportation service. Competition is justifiable as a regulatory device for transportation only where it can promote better and more efficient service. Where it has the opposite effect, its operations are contrary to the public interest and a monopoly or semi-monopoly condition should be accepted, with reliance on regulation to prevent the monopoly from taking unfair advantage of its position. After all, the justification of regulation in transportation is the partially monopolistic character of the service. The customers of the industry which is so thoroughly regulated, do not require for their protection the same degree of competition which is necessary in unregulated industry.

Obviously not every community in the United States has enough traffic to support all four types of transportation—rail, water, highway, and air. Some communities, indeed, can support only one type, and, in such cases the choice should fall on the least dispensable among the agencies, a choice which may vary from locality to locality.

V—Taxation

(a) Relation of taxation to transportation income and earnings.
(b) Multiple taxation as imposed by various political subdivisions.
(c) Discriminatory taxation.
(d) To what extent, and by what means, are common carriers of any type unduly burdened by taxation policies?
(e) What remedies would you suggest?

In discussing taxation, a clear distinction should be made between (1) income taxes, property taxes, excise taxes and other such imposts for the general support of government, on the one hand, and (2) license fees and fuel "taxes" levied upon users of public highways which, actually, are not taxes at all but,

in effect, are rental charges levied for the use of public property. Fees paid by operators of highway vehicles, for example, for the use of the highway are properly comparative, not with railroad taxes but with the sums the railways pay for interest and maintenance charges on their roadway and track.

This distinction is important, and it is usually not made by spokesmen for highway transportation. No true comparison is possible between railroad taxes and those paid by agencies of transportation which use public property in their operations unless this distinction is understood.

At present railroads and other transportation enterprises are subject to income and profits taxes on a similar basis —but the railroads, as owners of their own roadways, also are assessed large sums in *ad valorem* taxation which highway, waterway and airway carriers escape—since they own relatively little tangible property and, instead, use untaxed public property as the equivalent of railroads' privately-owned roadway.

In effect, the *ad valorem* taxes levied on the railroads are a charge on railroad gross income, amounting sometimes to 10 per cent or more, and call for rates to customers just that much higher than would otherwise be necessary. There seems no justification, except irrational habit, which can be advanced to explain why railroad traffic should bear *ad valorem* taxes equivalent in effect to a gross income tax of, say 5 or 10 per cent, from which traffic by other agencies of transportation (except pipelines) is completely free.

To correct this anomalous situation—which is a further hindrance to the railroads in demonstrating their relative "inherent advantages"—a comparatively simple remedy would lie in levying exactly the present total yield of *ad-valorem* transportation taxes, but assessing it, instead, in the form of a percentage tax on the gross revenues of *all types of transportation.*

This expedient would not only end the inequity of the present *ad valorem* taxation which applies with undue severity on the railroads (and pipelines) alone—but would be a great aid to many localities which have lost their railroad service because of the competition of highway vehicles and in thus losing the railroads' *ad valorem* taxes have been seriously handicapped in meeting costs of local government; since no means is now available whereby transportation agencies which have ousted the railroads can be made to yield the contributions to local government budgets which the abandoned railways formerly contributed.

It should be remembered, however, that the remedy here suggested for removing the inequity of present practice regarding *ad valorem* taxation has nothing whatever to do with the charges to be levied for the use of publicly-owned property for business purposes. This is a separate problem.

In addition, it should be noted that present excise taxes on for-hire transportation—without a comparable charge against private transporters—work an unjustifiable and uneconomic hardship on all for-hire carriers.

VI—Federal Aid to Transportation

(*a*) Give your views in general as to government aid to transportation.
(*b*) Do you regard any present federal aid to transportation as working an unjust advantage or disadvantage to any types of carriers?
(*c*) If so, to what agencies; and what constructive remedy do you suggest?
(*d*) To what extent, if any, should federal aid to various types of common carriers be provided?

(a) Governmental aid to transportation can be extended, with due regard to the well-being of the nation's transportation system as a whole, only if the aid is apportioned by somebody (i. e., an administrative agency or a Congressional committee) which has equal concern and responsibility for safeguarding the public interest in *all* forms of transportation, as we have already indicated in our answer to your question No. II (e).

For example, a federal appropriation for inland waterways cannot avoid having at least some harmful effect upon railroad and highway transportation; and it would be a reassuring safeguard if all such appropriations were passed upon by a body with definite concern and responsibility for the welfare of all types of transport. Under such an arrangement, the public would have assurance which is now lacking that the benefits it would gain from federal aid extended to one type of transportation would be more than sufficient to offset the damage which this aid would do to the types not receiving such assistance.

None of our agencies of transportation is any longer in the "infant industry" category. There seems to be no sound economic reason, therefore, why any of them should receive aid from the public treasury. If people want to travel or ship their goods, let them pay the full cost of the service. The taxpayers will have their hands full in paying for the war. Where public funds are necessarily invested in transportation because (as in the case of highways and waterways) the facilities are in public ownership, then charges should be levied on users on a basis sufficient to reimburse the treasury, with interest, for the outlay.

The only justifiable occasion for federal aid to any type of transportation where users should not be expected to reimburse the expense, would arise in connection with a specific national defense project—e. g., where military authorities might require a railway line, or a highway, or an improved waterway, or an airport in a place offering insufficient commercial traffic to yield revenues adequate to cover the expense. In such cases, if the governmental body allocating tax funds to transport agencies had equal concern for all of them, it would doubtless proffer such assistance as actually needed in a manner to do the minimum harm to other agencies of transportation not participating in the disbursement.

(b) and (c) Since highway transportation, inland waterway transportation, and air transportation are the recipients of generous "federal-aid"—which users of these types of transportation are not required to repay to the federal government on a *quid pro quo* basis—it is obvious that users of these forms of transportation are given an advantage not enjoyed by the users of railroad transportation. The expense to the actual user of patroniizng railroad service must cover all the costs of such service, whereas the expense to the user of inland waterways and other tax-aided services represents a sum somewhat less than the entire cost of the service. There is no economic or sociological justification for an arrangement whereby the user of railroad service is required to pay the entire cost of the service, includ-

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ing *ad valorem* taxes on all fixed property—while the user of air, waterway or highway service pays less than the entire cost of the service and no *ad valorem* taxes on fixed property.

(d) We do not believe that there is any justification for federal aid to transportation—except to the extent that such aid is directly reimbursed to the federal treasury by tolls or special excise taxes levied upon the direct beneficiaries of this federal aid. In any event, all such aid should be allocated by some governmental body with equal concern for the welfare of all agencies of transportation—to guard against the possibility that what is "federal aid" to one agency of transportation may turn out to be "federal harm" to the national transportation system as a whole.

Specifically, we believe the prohibition against toll charges in the Federal Aid Highway Act should be repealed and replaced by a requirement that all highways in the "super" category should be financed by tolls, and that all federal aid highway outlays should be reimbursed by such tolls and/or excise taxes on highway transport "earmarked" for this purpose. Furthermore, we believe federal aid for airport development should likewise be recovered by special fees or excise taxes on the users of these facilities—especially in the case of large airports utilized by commercial air transportation. Finally, in our opinion, tolls and fees should be laid upon all users of improved waterways to cover maintenance and capital charges by the government on these waterways.

VII—Interstate Barriers to Commerce

(*a*) To what extent has the federal government the legal authority and the public duty to remove state barriers to the free flow of commerce, apart from considerations of safety? (*b*) Cite instances of unjust barriers which now handicap any class of interstate carriers. (*c*) What remedy do you suggest? What should be done to secure state cooperation to remove unjust barriers and oppressive regulations of interstate transportation as to—(1) Highways? (2) Railroads? (3) Waterways? (4) Air transport?

The principal complainants against alleged "barriers" to interstate commerce have been the interstate truck operators. Where such barriers actually exist—e. g., in the instance of a teamsters' union which stops trucks entering a state and requires them to pay for the services of an additional and unneeded driver—then Congress should undoubtedly act to remove such barriers by appropriate legislation.

Many of the conditions denounced as "barriers" by the truck operators will not be found upon critical examination actually to warrant such a label. For example, truck operators characterize as a "barrier" the fact that one state permits trucks weighing 30 tons on its highway system and an adjacent state limits weight to 25 tons or perhaps less. Any state which has a limitation lower than that of the most liberal state in the nation is thus deemed to be guilty of erecting "barriers" against interstate commerce.

Road conditions vary greatly among the states. Traffic density varies and so does the cost of road maintenance. Each state largely finances its own road system. Probably the highway authorities in the individual states are somewhat more objective judges as to the maximum size of trucks economically justifiable for their local conditions than is a national association of truck operators; and probably more so, too, than some administrative tribunal in Washington which has no responsibility for state finances and taxation. It would seem to be that in characterizing a state's limitation on size and weight of trucks a "barrier" to interstate commerce, the burden of proof lies upon the individual or group making the accusation; and merely a showing that one state's restrictions are more severe than those of another state is insufficient evidence to sustain the accusation. Instead, an adequate showing would have to cite from the state accused road cost data which would sustain a finding that the state's limitations were purely arbitrary and unrelated to facts. No such evidence has been offered against the states at which the "barrier" accusation has been hurled.

Truck operators also deem it a "barrier" when a state does not permit out-of-state trucks to traverse its highway system without paying a license fee. Considerable acceptance appears to have been secured for this complaint, since a substantial number of states now grant so-called "license reciprocity"—which enables a truck by paying the license fee in its home state to use the highways of other states without payment of any fees whatever.

It is impractical for such license "reciprocity" to be made general, because some states play the host to out-of-state trucks to a far greater degree than their own trucks use the highways of other states. Furthermore, with license "reciprocity," a temptation is offered to the truck owner to license his truck in the state with the lowest fees. With further extension of this "reciprocity" practice, it seems quite likely that competition may ensue among states to beguile trucks from other states into changing their registration—offering an inducement in the way of sub-standard fees.

Such rivalry might very well result in bringing the average license fees paid by interstate trucks to a level far below a just and compensatory standard.

It should be borne in mind that a railroad operating in a dozen states pays taxes in all of them—and if a parallel truck operation pays in only one of them, then we have a competitive "barrier" operating against efficient railroad service. This might be termed a "barrier in reverse," and undoubtedly there are more such "barriers in reverse" operating against railroad transportation than there are genuine and arbitrary barriers against the interstate movement of trucks.

In sum, it may be said that Congress undoubtedly has the power and also the obligation to legislate for the removal of any and all unquestionable barriers to interstate commerce which may be arbitrarily erected by the states for the obvious purpose of impeding interstate commerce. On the other hand, it is equally clear that a large part of the agitation against so-called "barriers" to trucks is disingenuous; and is a political device to enable trucks to escape the payment of reasonable charges for the use of the highways and to force the acceptance of vehicles of uneconomic size upon the highways. The "barrier" cry is thus, frequently, a device designed rather to foster and increase special privilege rather than an honest effort to remove unfair discrimination.

VIII—The Submarginal Carrier

(*a*) What government support, if any, should be given a public carrier with a marginal or submarginal income?
(*b*) To what extent, in your opinion, will the marginal or submarginal carrier in the postwar period be benefited by—(1) Increased volume of traffic? (2) Increased population? (3) Reduction of fixed charges? (4) More favorable financing? (5) Reduced operating costs? (6) Modernization of facilities, equipment, and practices?
(*c*) What should be the attitude of the public toward abandonment of a marginal or submarginal carrier for which there is adequate substitute service, or for which adequate substitute service can be provided?

Transportation being an economic service, it ought to be supported by those who demand the service. Where traffic is meager, facilities are not justified of a magnitude and variety equal to those in places where traffic is heavy. The "sub-marginal carrier" is, thus, largely a local problem, rather than a federal one. If the federal government refrains from insisting upon the continuance of more competition in a given locality than available traffic can support, and if it ceases to discriminate between carriers in the "federal aid" it gives to transportation, then it will have gone about as far toward solving the problem of the "sub-marginal" carrier as there is any justification for it to go (unless, perhaps, the facility is one which is designated as strategically important by the military authorities). A possible further step by the federal government might well be to grant legislative recognition to the injustice of any governmental action having the effect of requiring such a sub-marginal carrier to pay wages at a level higher than those prevalent in the locality which it serves.

In general, however, the "sub-marginal" characteristic of a carrier (provided the federal government treats all carriers alike) will stem from local conditions, and should receive a local solution. If local interests wish to retain the services of the sub-marginal carrier, then let them give it the traffic and pay

it the rates necessary to continued service.

If that expedient is insufficient, then let the state or local governments grant this carrier tax relief or, if need be, a subsidy. The point is that, so long as the federal government is not in any way discriminating against such a carrier or submitting it to some other injustice, then the solution of the carrier's difficulty is not a duty devolving upon the federal government. The federal taxpayers or the national transportation system in general ought not to have the responsibility or the expense of providing local transportation facilities of a kind which local users are unable or unwilling to support.

IX—Miscellaneous Problems

(a) Steps that may be taken apart from congressional action, by carriers themselves, by shippers, by travelers, by communities, toward meeting our postwar transportation problems.
(b) To what extent have common carriers developed modernization programs for the post-war period, including—(1) Technological advancements? (2) Engineering? (3) Economies? (4) Practices? (5) Tracks? (6) Equipment? (7) Terminals? (8) Facilities? (9) Operations? (10) Services?
(c) Relations between management and men; between the carriers and the public.
(d) What effort have common carriers made to reduce wasteful competition?
(e) Plans for greater coordination of terminal facilities between the carriers of the same and other types.

(a) Everybody with any relation to transportation—shipper, carrier representative, legislator, regulator, or "public"—can do his part toward solving the nation's post-war transportation problems if he will qualify every particularistic ambition he may have regarding transportation by examining it in the light of this "yardstick": *Will what I propose increase the economy of the nation's transportation service as a whole; will it help to preserve free enterprise in transportation; will it preserve and strengthen all of the transportation service which the recent war has shown to be indispensable to the national defense?* If particularistic and local interests were in every case subordinated to the welfare of the nation as a whole, the nation's transportation problem would be greatly simplified.

(b) As far as the railroads are concerned, representatives of the industry itself will doubtless offer your committee full details as to the unprecedented degree to which the railroads are studying all phases of their service and operations with a view to their improvement. We abstain, therefore, from duplicating a record which you will get in greater detail from authoritative sources.

(c) The Railway Labor Act, in our opinion, should be amended to repeal the provision whereby the National Mediation Board appoints "referees" to decide disputes upon which the National Railroad Adjustment Board is unable to agree. These disputes are highly technical and "referees" are poorly equipped by experience to interpret them fairly. It is axiomatic that any law which is prolific of litigation is a poor law and that has been the result of the "referee" provisions of the Railway Labor Act. The proper place to settle industrial disputes is on the property where they occur, and an arrangement which discourages such local settlement and encourages their removal to a tribunal far removed from the actual scene of disagreement puts a premium on prolonging and formalizing instances of friction which, in the interest of happy employer-employee relations, should be settled promptly and informally.

We note also that, up to 1941, whenever "emergency boards" were appointed under the Railway Labor Act, both parties always acquiesced in the findings of these boards. In 1941, however, the railway unions refused to accept a wage award made by one of these boards. The President — instead of putting the "moral" force of his office behind the award of the board in this instance (which had been the intention of the framers of the law)—called in the board and asked it to serve in mediation to induce the railways to grant larger increases than the board had found to be justified. This the board did, and it was only by acquiescing in such additional increases that railroad managements saved the nation the calamity of a railroad strike on the very eve of the Pearl Harbor attack.

Since the President so signally refused in 1941 to put the prestige of his office behind the decision of an "emergency board" which he himself had named—it has now developed that the railway unions seldom, any more, accept the awards of these boards. It has become almost standard practice for the unions to refuse to be satisfied with awards of these boards and, by threatening to strike or actually doing so, to succeed in exacting concessions additional to those to which impartial judgment has found them entitled.

Here, plainly, is a condition threatening future industrial peace in the railroad industry, and in which Congress is properly concerned. We do not propose compulsory arbitration, but we believe some governmental "sanctions" on disputants are necessary to persuade them to accept the findings of these boards, in order to restore the present badly damaged prestige of these tribunals; and to make the peaceable acceptance of these awards once more the general rule instead of the exception, as it now is.

As to relations between the railroads and the public, we suggest that you examine with care a study entitled "The Public Looks at Railroads," being the fifth annual survey of public opinion made for the Association of American Railroads by the Opinion Research Corporation of Princeton, N. J.—reviewed in the *Railway Age* of November 17 and a copy of which the Association of American Railroads would probably be willing to supply to your committee on request.

In that study you will find that the public holds the railroad industry in high esteem and is fully aware of the importance of its service to the nation. You will also find that, despite this good-will toward the industry, the majority of the public has no comprehension at all of the competitive handicaps under which the railroads suffer, and which are fully outlined in the earlier part of this statement.

(d) What the railroads have done to reduce wasteful competition has, perhaps, been insufficient from an economic point of view and from the point of view of the public welfare; but it must be noted that even what they have done has aroused the displeasure of the Justice Department, which is striving to destroy all railroad organizations through which the carriers might collaborate for the elimination of wasteful competition. It does not seem to us that any effective purpose is to be served in seeking ways of reducing wasteful competition so long as the anti-trust suit at Lincoln, Nebraska, and the state of Georgia's suit in the Supreme Court are pending.

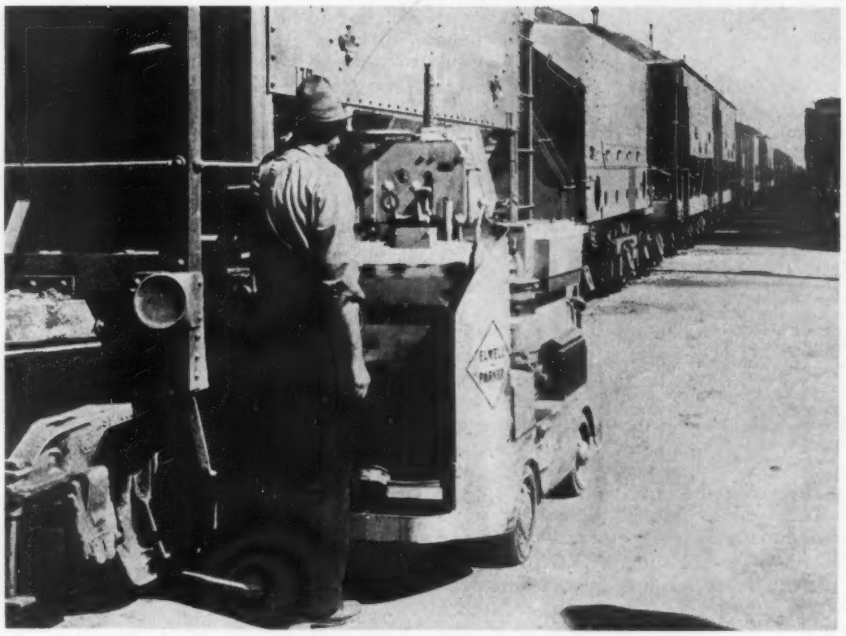
As for the elimination of wasteful competition among the several *types* of transportation—that can be accomplished only when all of them are placed on a level of equality as to taxation and self-support, as has been set forth earlier in this statement. It is wasteful for a truck to do a transportation job for which total costs (including that part paid by taxes) are higher than they would be if movement were made by rail. But this kind of uneconomic competition—one agency invading the economic field properly belonging to another agency—is unavoidable so long as the several agencies are treated in an unequal manner in taxation and in the degree of self-support expected from them.

Terminal Coordination

(e) There has been a considerable degree of coordination of railroad and bus terminals, in instances where there is some degree of railroad ownership in the bus lines (e. g., at Broad Street Station and Reading Terminal at Philadelphia—both of which are bus stations as well as railroad stations). There is also a high degree of coordination between railroad train service and what might be called "Toonerville" buses which meet the trains at many points, and, in effect, extend railroad service to many hinterland points not served by rail.

We should not contend, however, that coordination between different types of transportation has gone nearly as far as the public interest requires that it should go. There is practically no terminal coordination at all between railroads and airlines. We see no hope that this unfortunate situation can be substantially corrected so long as unequal treatment at the hands of government fosters suspicion and unnatural rivalry among the several agencies of transportation.

Respectfully submitted by
THE EDITORS OF RAILWAY AGE.



Line-up of Cars on an Ore-Loading Dock with an Industrial Truck Ready to Open and Close Bottom Gates

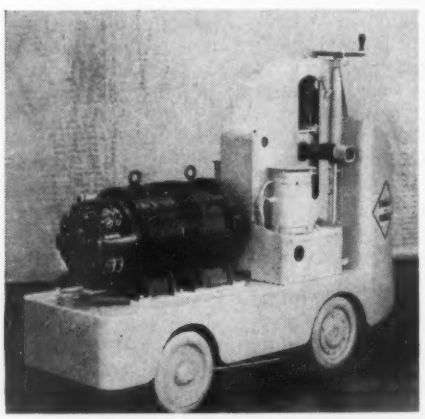
A Rolling Wrench for Hopper Car Gates

TRUCK-MOUNTED wrenches for opening and closing bottom gates on iron ore hopper cars are now in service on the Duluth, Missabe & Iron Range docks in Duluth and Two Harbors, Minn. Developed by Elwell-Parker Electric Company, Cleveland, Ohio, for use by one of the steel companies, they are now serving to facilitate shipment of iron ore from the Lake Superior district to lower lake ports and blast furnaces.

Hopper cars vary in size from 50 to 85 tons capacity. Two doors forming a V-shaped pocket in the bottom of a car are controlled by a ratchet device. Heretofore it was necessary for two men using a wrench 4 ft. long and weighing 55 lb. to operate the ratchet, manual labor of an arduous and dangerous type. With a truck, the truck operator unwinds the car's mechanism that releases the ore, and rewinds it securely and safely in a fraction of the time required by two men working manually.

Instead of using a battery, the truck obtains power from a supply line through a long flexible cable, plugged into sockets placed at regular intervals along vessel-loading docks. Motors on the truck are used for maneuvering and also for rotating the adjustable wrench. The cables are about 100 ft. long, permitting 200 ft. movement along the line of cars before the connection is shifted. Outlets are placed at the same stations used for supplying lights to the docks, making new wiring unnecessary.

In the place of the battery on the truck, there is a 3-phase, 220-volt a. c. motor direct connected to a 32-volt generator which supplies power to the 32-volt motors. A 2 hp. motor drives the truck and two ¾ hp. motors are used, respectively, for adjusting and turning the wrench. Adjustment is necessary according to the size of the car, and the height of the wrench may be raised and lowered within a range of 30 in. The wrench is of the socket type on the end of a square steel bar, 3 ft. long, which is movable horizontally.



A Truck with Cover Removed to Show the Motor Generator Set

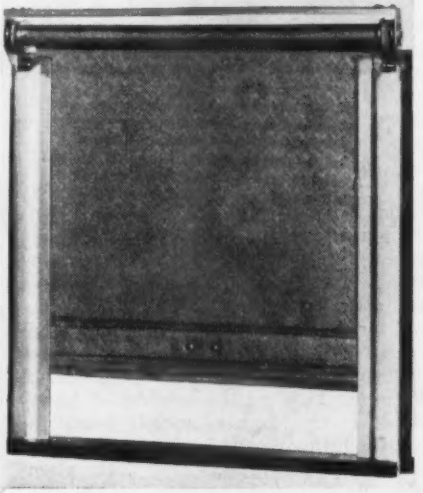
Pratt Window Curtain

The Pratt passenger-car window curtain unit, now being marketed by the Power Parts Company, Chicago, is a new curtain design which has been extensively tested under actual service conditions and is furnished complete with plastic or metal window sill and rubber moulding strips in a self-contained frame.

Utility, appearance and ease of installation are major objectives sought in the design of this unit. A variety of shapes and annodized colors are available for the exposed aluminum extruded parts, permitting flexibility in design to harmonize with the styling of any particular car interior. Colors, patterns and styles of curtain material as selected by individual roads will be used.

The curtain is designed to remain in any desired position and can be operated from any point. The bottom bar always remains parallel and the side edges of the curtain cannot run out of the channels. The unit is anti-rattle and entirely

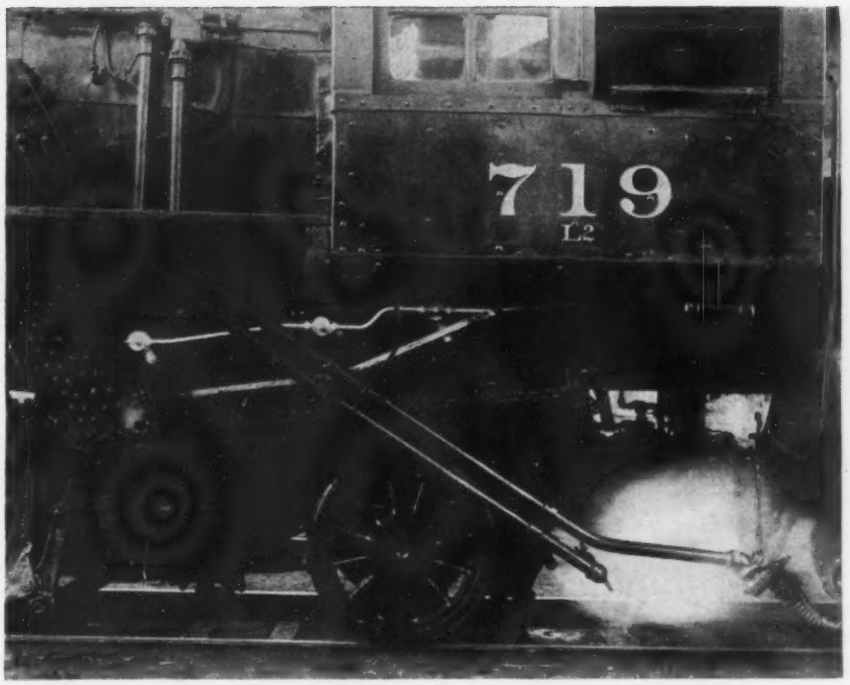
Front View of Pratt Window-Curtain Unit



Top Roller and Operating Tapes Seen from the Rear

lightproof. A compensating spring, connecting the curtain roller and spool shaft, equalizes the tension between the curtain material and the operating tapes as the diameters of the curtain material and the tape spools change. This serves to keep the curtain taut.

The anti-rattle feature is secured by means of spring-loaded shoes contained in the sliders attached to both ends of the bottom bar. The positions of the bar are kept parallel by tapes, one at each end which are fastened to the bottom bar and to the spools at the top, and work in unison. The curtain extends approximately ¼ in. into the channels at each side, and the addition of bumper pads underneath the bottom bars eliminates passage of all light. The curtain operates from any point and will remain in any desired position because of an equalizing movement embodied in the design, which has a counterbalancing action.



Smoke Consumer Silencer Developed and Successfully Used on C. M. St. P. & P.

Smoke Consumer Silencer

By J. E. BJORKHOLM*

With increased activities in the interest of smoke abatement now manifesting itself throughout the country, renewed interest is being awakened to provide practical and efficient means of combating an evil that has not always been given the effective attention it deserves. Because of the demands from civic bodies and municipal authorities that increased efforts be made by coal-burning industries and railroads to combat the smoke evil, renewed and earnest efforts have recently been made, particularly by the railroads, aided by the coal industry, to introduce means whereby suitable smoke abatement facilities on locomotives will be placed at the disposal of locomotive crews.

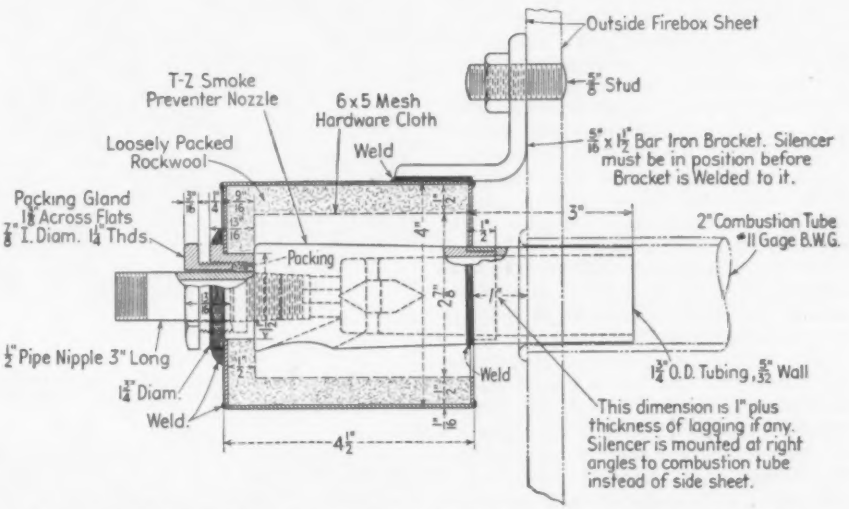
At best, smoke abatement on locomotives is not always an easy matter. Because of the varied conditions under which a locomotive operates, particularly when in yard or transfer service where the capacity at which the locomotive is being worked is frequently and suddenly changed from zero to full capacity and as suddenly again back to zero, some smoke cannot always be avoided. Nor is this always possible on road locomotives when making stops of very short duration as the fire must be in condition to maintain maximum steam pressure for rapid acceleration for "getting out of town," to use a popular expression.

The most popular and the most effective means of combating smoke in a locomotive firebox is the introduction of air above the fuel bed for the purpose of not only adding air to aid in igniting the escaping gases, but also to create a turbulence in the firebox, all in the interest of improved combustion. This is particularly important when the locomotive is not exhausting to pull sufficient air through the grates and fuel bed. The mechanical means of accomplishing this has always been rather crude, the means in cost instances being merely a pipe nipple extending into the so-called combustion tube which, when steam is applied, causes a steam jet to induce free air to follow.

The trouble with this arrangement has always been that, while reasonably effective, it has always been a nuisance because of the noise it creates and thus was never popular with the enginemen and consequently not properly used. In later years improved nozzles have been introduced that have materially, but not entirely, eliminated the noise, but they were still objectionable to the locomotive crews.

During the last year or two, silencers have been introduced that have completely eliminated the noise and with their introduction and adoption a big step has been taken in the abatement of objectionable smoke from locomotives. On the Milwaukee, after a good deal of experimenting, a silencer has been adopted that has proved entirely effective and is of minimum dimensions, consistent with effectiveness. This is an important feature because on modern steam locomotives numerous pipes serving various appurtenances are located along the outside firebox sheets and to locate a silencer without entirely too much work in relocating of piping requires silencers of minimum size.

The silencer illustrated is only 4½ in. by 4 in. and can be constructed of either sheet metal or tubing. It is built around a T-Z smoke abatement nozzle which in itself reduces the noise materially com-


Outside Firebox Sheet
T-Z Smoke Preventer Nozzle
6 x 5 Mesh Hardware Cloth
⅝" Stud
Loosely Packed Rockwool
Weld
⅝" x 1½" Bar Iron Bracket. Silencer must be in position before Bracket is Welded to it.
Packing Gland 1⅛" Across Flats ⅞" I. Diam. ¼" Thds.
3"
2" Combustion Tube #11 Gage B.W.G.
Packing
½" Pipe Nipple 3" Long
¼" Diam.
Weld
Weld
1¾" O.D. Tubing, ⅝" Wall
This dimension is 1" plus thickness of lagging if any. Silencer is mounted at right angles to combustion tube instead of side sheet.
4½"

Cross-Section Showing Construction of the Milwaukee Smoke Consumer Silencer

* Superintendent of motive power, Chicago, Milwaukee, St. Paul & Pacific.

pared with the plain steam-jet nipple and thus permits using a silencer of comparatively small dimensions. The silencing material used is rock wool or fibre glass and the silencer body is so constructed that it can readily be disconnected and removed for cleaning purposes without disturbing the fit of the T-Z nozzle in the combustion tube. This is an important feature because experience has shown that a good deal of dust and other foreign matter is drawn into the silencer body and, to keep it effective, it should be cleaned at stated periods depending on various factors surrounding the particular locomotive involved, such as rate of fuel burned per engine assignment, etc. Thus the ease with which the silencer may be removed, cleaned and reapplied is an important matter.

Yale Announces New Lift Trucks

The Yale & Towne Manufacturing Company, 4530 Tacony street, Philadelphia 24, Pa., has made a recent addition to its line of materials handling machinery — the Worksaver Electric Truck. With power for lifting and power for travel, the Worksaver relieves its operator of physical strain. Compact and easily controlled, it can be maneuvered in congested areas, along narrow passages, and around sharp corners.

The elevating unit on the truck consists of a high-torque electric motor which operates a Yale-designed high-pressure hydraulic gear pump, which, in turn, activates a ram. Lifting and lowering are controlled by a convenient switch placed on the front of the battery compartment.

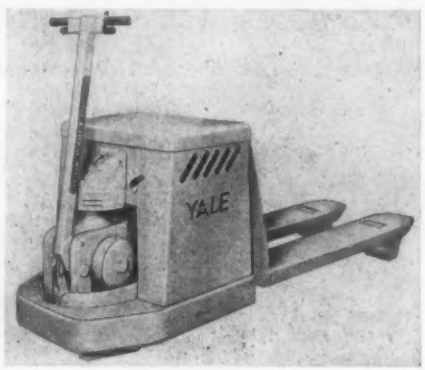
The drive motor, located at the base of the steering handle, is a high-torque, ball-bearing type. A drive pinion, mounted on its armature shaft, operates through a double-reduction spur-geared unit, running in lubricant, to drive a 10-in. diameter, rubber-tired front wheel. The drive unit is mounted on a 16-in. diameter ball-bearing turntable, immediately above the front wheel.

Power for both the elevating and drive motors is obtained from a lead or alkaline battery housed in a compartment which is an integral part of the truck chassis. This compartment has a hinged cover and removable sides for convenient charging and change of batteries.

The Worksaver is available in two types: (1) platform, (2) pallet. The former is designed to handle single unit loads, consisting of a crate, bale, etc., or multi-unit loads on skids or in skid bins up to 6,000 lb.; the latter to handle single or multi-unit loads which are "palletized," up to 4,000 lb.

Important safety features are found in the mechanism of the Worksaver. When the cam controls on the steering handle are at neutral, the brake is applied. When the steering handle is in vertical or horizontal position, the brake is automatically set and the power is cut off. This arrangement not only gives the operator complete control of the truck on ramps, but, in the event the handle is dropped by accident, the truck is halted immediately.

Lift Truck for Platform Loading



Pallet Type Lift Truck

Asidbar

The Koppers Wood Preserving Technical department, Orrville, Ohio, has developed a treatment for soft wood lumber, to produce a material named Asidbar. This material is resistant to chemicals, acids, moisture, decay and wear and can be used for construction in and near locomotive terminals and industrial areas where exposure to locomotive smoke or industrial gases may cause rapid deterioration of most construction materials. Because of its increased hardness and wearing qualities, wood thus treated also has possible applications for flooring on platforms and in railroad cars, and in other construction where it may be subject to rough usage.

In applying this treatment, a heavy coal-tar plastic material is liquified by high temperature and the wood is immersed in the compound in sealed retorts. The plastic is forced into the wood fibers by high pressure at temperatures sufficiently high to hold the compound in a liquid state. After an impregnation period of 10 to 20 hours, as the compound is allowed to cool, it sets as a plastic-solid distributed in the cells of the wood, to produce the material known as Asidbar. The treatment increases the weight and hardness of the wood, gives it a black surface which need not be painted, and resistance to wear, abrasion, water and chemicals is considerably increased. Asidbar is suitable for many severe service conditions at temperatures up to 180 deg. F.

Wood thus treated can be installed with ordinary tools. In applications where expansion or shrinkage are detrimental, the treatment substantially decreases changes of shape and dimensions when the wood is subject to alternate wetting and drying. Wear resistance also is increased by the increased hardness and other properties given to the wood by the plastic.

Asidbar has been given severe tests to establish its resistance to acid and acid fumes. In one application in a spray-type pickling machine, Southern yellow pine guides treated by this process were subjected to 10 to 15 per cent sulfuric acid at a temperature of 180 deg. F. and it is said that the acid-resistant wood was sound and firm after 18 months of service. Untreated wood in this same service, it is reported, lasted only two to three weeks. It is also reported that fume ducts exhausting the acid fumes from the same machine were built of acid-resistant treated wood, and have given similar service. Metallic alloy flues lasted only a short time, while untreated wood fell apart after two weeks of exposure.

Towmotors New Industrial Tractor

After a lapse of four years, gasoline-powered industrial tractors are once again rolling off the assembly lines in the Towmotor Corporation plant at Cleveland, Ohio. Production of these units, which Towmotor has been building since 1919, was halted in 1941 to permit the company to concentrate its production facilities upon the manufacture of its lift trucks which throughout the war played a vital role in expediting the movement of supplies to all theaters of operation.

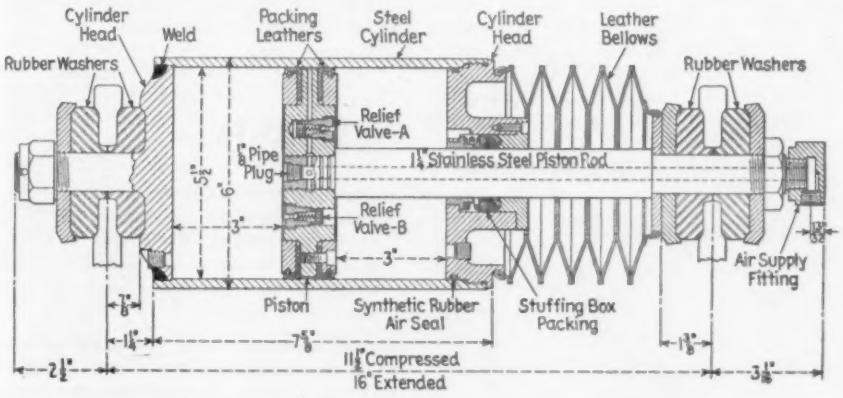
Tractor for Many Railway Storehouse Uses

The new model tractor, illustrated, has several outstanding design and construction features, and is said to be capable of pulling any load that can be placed upon industrial-type trailers. Compact and maneuverable, the Towmotor tractor is especially suited for working in freight houses, store houses, repair shops and in confined areas such as in narrow aisles, and in and out of railway cars. The new unit embodies numerous safety features, eliminates many hazards in moving materials and supplies, and operates economically.

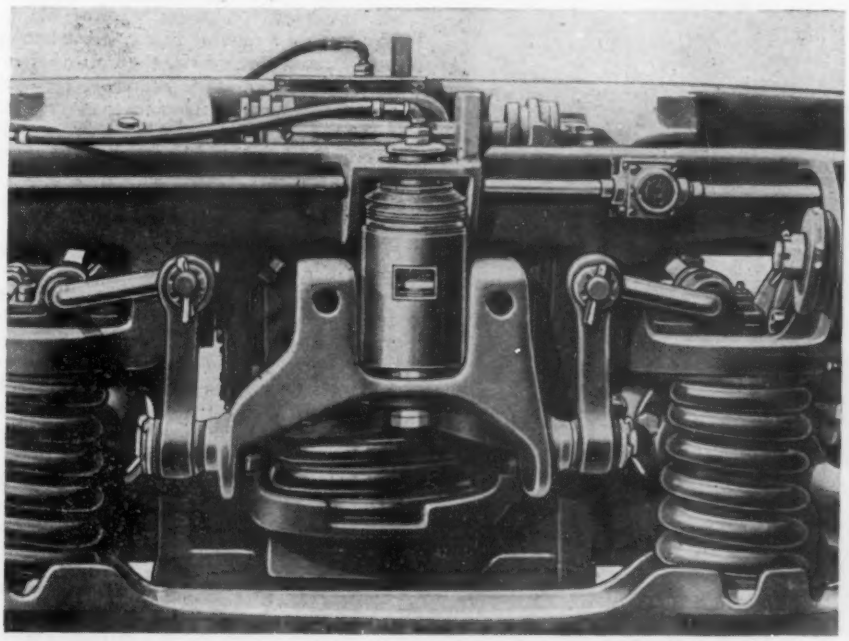
Glide-Ride Air Cylinder

A new type of cushioning device, especially designed for use on passenger-car trucks in high-speed service, has been developed by the Hanna Engineering Works, Chicago, and is known as the Glide-Ride air cylinder. Flexibly connected between the truck bolster and the main frame, this cylinder (two per truck) operates on compressed air taken from the signal line through a 1/32-in. restricted opening and utilizes an ingenious patented piston construction which permits the truck springs to function freely under light road shocks but builds up pressure rapidly and supplies an effective air cushion to supplement spring action under heavier shocks.

Being double-acting, the cylinder also cushions rebound. With one cylinder installed on each side of each truck, car sway on curves is minimized and cars permitted to negotiate the rougher sections of track more smoothly and at higher speeds than would otherwise be possible. An adaptation of this cylinder is also being developed for use in a cross-horizontal position between the rear truck frame and the spring plank to minimize the whip action of observation-car ends while passing curves at high speed. In preliminary service tests of one car set of these air cylinders on a C. M. St. P. & P. passenger car which has made about 150,000 miles in the last year the cylinders functioned as intended and received no mechanical attention other than occasional inspection.



How the Hanna Glide-Ride Air Cylinder Is Built



Hanna Air Cylinder Installed Between Truck Frame and Bolster to Give Smooth Riding in High-Speed Passenger Service

The Glide-Ride air cylinder and piston consist of a 5½-in. seamless-steel tube with a steel head welded in the lower end and the upper head screwed in place, with a synthetic rubber gasket to prevent any possibility of air leakage. The built-up piston has a travel of 4½ in. in this cylinder and is constructed with two spring-supported packing leathers; annular ports lead from the center of the piston to the cylinder walls between the packing leathers; and two spring-loaded relief valves, usually set for 100 lb., admit air through a ⅛-in. porthole above each ball check and pass it through a 1/32-in. hole in the plug at the other end.

Valve *A* thus passes air in excess of 100 lb. from above the piston back into the air supply line at the piston center. Valve *B* simply passes excess air from below to above the piston. The stainless-steel piston rod, suitably packed to prevent leakage of air through the stuffing box, is hollow bored and takes air from a special fitting and 1/32-in. orifice in the air signal supply line and delivers it to the center of the piston. A leather bellows protects the piston rod against dirt and moisture. Necessary flexibility in the attachment of the cylinder between the bolster and truck frame is secured by means of rubber washers inserted between steel supporting plates on the upper and lower anchor bolts.

In operation, the piston normally rides at about the center of the cylinder. Air is admitted at signal-line pressure of 65 lb. through the hollow piston rod to the piston center, from which it is delivered through three lateral holes to the piston walls and thence past the packing leathers until pressures are equalized on both sides of the piston. Any upward movement of the piston then compresses air above it and permits air to flow past the bottom leather into the space below. Similarly when the piston moves downward air pressure is built up below the piston and additional air is drawn in above.

This pumping action continues until air pressure is built up to 100 lb. pressure on both sides of the piston permitting it to float freely under light road shocks and small spring travel. In case excessive shock carries the piston nearly to the top of the cylinder, air pressure builds up rapidly to resist and finally stop this movement. The excess air is then slowly exhausted through relief valve *B* to the underside of the piston. Rebound is similarly cushioned when the piston moves towards the bottom of the cylinder, only in this instance the excess air passes through relief valve *A* back into the air supply line. Since there is no loss of air to the atmosphere very little air is required for operation of the cylinders. The cooling effect when air expands through the relief valves is said to offset heating due to compression, so

there is no material increase in temperature.

The Glide-Ride air cylinder for railway passenger cars is a patented device, the principle of which has been thoroughly tested on other types of vehicles. The device is simple in construction, with no mechanical parts requiring close tolerances or frequent adjustment.

Wrecking Cranes Have New Features

Four 250-ton railroad wrecking cranes have been built by the Industrial Brownhoist Corporation, Bay City, Mich., for the Pennsylvania, which are said to incorporate a number of improvements over this company's previous models. One of the improvements is a newly designed alloy steel boom, which permits maximum reach with both main and auxiliary blocks. The boom extends 33 ft. 10 in. beyond the end sill of the crane car when lowered into traveling position, and is held rigid to the car and crane structures. In this position the boom remains within a 10-ft. 6-in. horizontal clearance on all curves up to 18 deg. Another new feature of the new cranes is the large water supply carried, which utilizes a system of three interconnected tanks having a total capacity of about 1,000 gal., instead of the single tank provided formerly, holding from 500 to 600 gal.

Various steel alloys have been used in the construction of the cranes, these including a complex alloy, quenched in a liquid medium and tempered, for the roller path casting, which weighs 12½ tons and forms the connection between the revolving upper framework and the car frame.

All of the principal controls, including the steam engine reverse gear, are air-operated, with the exception of the brakes, which are operated manually, and all of the controls are said to produce sufficient power to permit the heaviest loads to be handled safely without the use of the engines. The reverse gear, in addition, is arranged so that it can be operated manually in case of trouble with the air controls, and thus avoid delays.

The main hoisting sheaves in both the boom and hook block run on special roller bearings to obtain greatest efficiency. The boiler pressure carried is 170 lb., but this is said to include considerable reserve power over that required to hoist a load of 250 tons, such a load having been handled with the pressure reduced to 70 lb.

In working order, each machine weighs 379,000 lb., and has a maximum axle load of 64,000 lb. with its full supply of coal and water. The trucks are a fully equalized three-axle-type of an improved design, and include renewable hardened bushings or plates at points of wear.

The 250-ton load is handled at a 17-ft. 6-in. radius from the center of revolution, and the standard rating allows 150 tons to be lifted 6½ ft. in front of the coupler casting with the boom centrally over the end of the crane car. When lifting heavy loads, the necessary stability is obtained by blocking under telescopic outrigger beams connected to the crane car.

Both hook blocks are equipped with eyebolts to permit direct attachment of the open sockets used on the slings with which heavy loads are handled. This arrangement frequently permits closer connections to be made between sheave block and load, and allows the load to be raised higher, as hoisting height is restricted when using a low boom. The regular single prong hook is also furnished for the smaller auxiliary block, to be used optionally.

One of the New 250-Ton Cranes Built for the Pennsylvania

NEW BOOK . . .

Railroad Avenue. Great Stories and Legends of American Railroading, by Freeman H. Hubbard. 374 pages. 9 in. by 6 in. Bound in cloth. Published by Whittlesey House, McGraw-Hill Book Company, Inc., New York. Price $3.75.

Mr. Hubbard describes "Railroad Avenue" as "a place—yes, but more than a place. It is a way of life. It symbolizes the human side of a great industry, the men who punch tickets and handle the throttle and throw switches; their families, their everyday existence, and their lore."

In this well-illustrated book the author has preserved for posterity some of the familiar and a number of the lesser-known stories which characterize the Railroad avenues throughout the country. He has taken the time and trouble to verify his facts, and has endeavored, where several versions of a story exist, to ferret out the correct one, or to give the differing versions, citing his authorities whenever possible.

Here one will find the stories of Casey Jones, Kate Shelley, and the James Boys; stories of famous wrecks, the great Pullman strike, famous railroad dogs, and trackside graves; as well as songs, poems and ditties about railroads and railroad men. One chapter is devoted to railroad trade marks, and another to railroad slang. Many of the interesting illustrations are unfamiliar. Woodcuts add to the pictorial interest.

Mr. Hubbard has captured the spirit of American railroads and railroad men and this volume stands as a tribute to both the railroads and the men who run them, sometimes in difficult and even harrowing circumstances. It is a book which railroaders and non-railroaders alike will enjoy. It also deserves a place on the shelves of those who are interested in collecting and preserving "railroadiana."

GENERAL NEWS

Full Pleasure Travel Seen for Late 1946

National Association of Travel Officials told to reassure "travel-starved public"

The railroads should be able to handle large volumes of vacation and pleasure travel by next fall and winter, according to a statement made by H. W. Siddall, chairman of the Trans-Continental and Western Passenger Associations, before the National Association of Travel Officials meeting in Chicago recently.

"While very few of the new trains which are being built by the railroads will be in operation during 1946," he said, "the railroads will be in a position during the latter half of the year to furnish excellent service to a travel-starved public. By 1947 many of the new streamlined trains will have been delivered, and will be operated at much greater speed than present trains, and should go far toward making the year 1947 the biggest travel year in the history of the United States."

Mr. Siddall asserted that the peak, so far, in military passenger traffic, had been reached in October of this year and that it was expected that the months of November and December would bring at least as large a load, with the greatest portion falling on the Western lines. Present estimates of the Army and Navy are for a concentrated and heavy passenger movement through March, 1946, by which time the return movements of Army personnel will be nearly completed. Large scale movements of Navy personnel are expected to continue through July.

Because of these factors, it is Mr. Siddall's view that, with certain exceptions, the railroads will not be in a position to handle a large volume of pleasure travel during the first five or six months of 1946, although he believes that the burden on certain eastern and southern lines will be diminished before that time.

On the other hand, Mr. Siddall stated, "It is my view that, commencing on or about June 1, the military load on the railroads will have declined to such proportions as to enable all railroads of the country, including the Western railroads, to handle appreciable numbers of tourists, and it is also my view that publicity to that effect can very well be released in the spring, thus enabling many thousands of people to make their plans for summer vacations."

New Circular on Delivery of Cars to Water Carriers

Some railroads still impose limitations on the delivery of their cars to Seatrain Lines, Inc., according to Supplement No. 14 to Special Car Order No. 30, issued by the Car Service Division, Association of American Railroads, on November 26 to cancel and supersede Supplement No. 13, which had stated erroneously that there were no longer any restrictions on the part of any railroad affecting the delivery of freight cars to any steamship, ferry, or barge line. The now-canceled Supplement No. 13 was issued November 6 and noted in the *Railway Age* of November 17, page 834.

The limitations involved are those established under Car Service Rule 4 which provided that "Cars of railroad ownership must not be delivered to a steamship, ferry, or barge line for water transportation, without permission of the owners, filed with the Car Service Division." Supplement No. 14 reveals that all but 45 roads now permit unrestricted delivery of their cars to Seatrain, while delivery for movement between Belle Chasse, La., and Hoboken, N. J., is permitted by the 45. Thirty-one of the latter, however, restrict deliveries to that route, and the other 14 permit also delivery for movement over one or more, but not all, of Seatrain's other routes which serve Texas City, Tex., and Havana, Cuba.

Since Trouble-Makers Can't Lose, They Won't Subside

"Regardless of the conditions under which the auto workers' union has called strikes, it has obtained part of nearly every strike demand. Even my four-year-old son knows enough to keep coming back more and more frequently if he gets part of what he asks for nearly every time he raises a rumpus. Even in war-time, the number of strikes multiplied in the auto industry because the government stepped in quickly and granted part of union demands in order to get the workers back to work.

"Anyone who gets part of what he wants when he makes a demand can eventually gain everything he wants. The time it will take depends importantly on the frequency with which demands are made. Continuation of this policy makes it certain that eventually the union will run everything."

—George Romney, General Manager, Automobile Manufacturers Assn.

Central Western Shippers Meet at Boise on December 5-6

With General Chairman F. J. Rebhan presiding, the 52nd regular meeting of the Central Western Shippers Advisory Board will be held in the Hotel Boise, Boise, Idaho, on December 5 and 6. The principal speaker and guest of honor will be Eugene B. Chaffee, president of the Boise Junior College, whose subject will be "Westward the Star of Empire."

Ky. Seeks to Mulct S. P. in Heavy Taxes

Tries to collect property tax on company which owns no railroad there

The state of Kentucky, in seeking new sources of revenue, has centered its principal attack upon the Southern Pacific, which, although organized under a charter granted by the Kentucky legislature in 1884, has no lines in or near that state. Two suits and a huge current assessment involving several millions of dollars are pending. Although the Southern Pacific is singled out for the greatest demands, other railroads, including the Atlantic Coast Line, and large corporations such as the Standard Oil Company of Kentucky, are also having their troubles with the present administration at Frankfort. Unlike most states, Kentucky has a system of collecting back taxes, under which an outside lawyer practicing in Louisville is retained upon a percentage basis to handle tax claims.

The latest attempt against the Southern Pacific is a current assessment of $873,853,956, upon which taxes at the rate of 50 cents per $100 of valuation, or $4,369,268, are claimed. For more than 40 years the Southern Pacific has been classified by the Kentucky Department of Revenue as a "franchise company." It, along with other railroads and public service corporations, has paid an annual franchise tax to the state and to Woodford county and the Woodford county school district where its statutory office is maintained. Although the franchise statutes are still in effect, the present administration is claiming the Southern Pacific should not pay the franchise tax but should pay a separate *ad valorem* personal property tax upon all of the stocks, bonds and accounts receivable which it owns. The effect of this would be that, instead of paying as heretofore a tax of approximately $100,000 a year, shared by the state, local county and school districts, the company would be required to pay a tax of over $4,000,000 a year to the state alone.

Local Folks Side with S. P.—It is understood that the local county and school authorities are joining with the company in protesting the tax, upon the ground that the Southern Pacific is a franchise company and is taxable under the franchise statutes as in the past. According to recent figures made available, the assessed value of all intangible personal property in the entire state of Kentucky, exclusive of bank deposits, is less than the proposed assessment against the Southern Pacific, and the annual tax claimed from the Southern Pacific exceeds by over $1,000,000 the entire amount

of taxes paid upon intangible property to Kentucky by all other taxpayers combined.

The Southern Pacific maintains only a statutory office at Spring Station, Woodford county, Ky., in charge of an assistant clerk. No directors' meetings are held in Kentucky; it has no lines of railway in or anywhere near the state, and its management is far removed therefrom; it maintains no bank accounts in that state and keeps no stocks, bonds or other securities therein.

In addition to the current assessment on stocks and bonds, Kentucky has two suits now pending against the Southern Pacific.

Millions Involved—In one, the state is attempting to make the company pay for the years 1941-42-43, the personal property tax of 50 cents per $100 upon the value of all stocks and bonds owned by the company of over $800,000,000 ledger value, in addition to the franchise taxes which the company has already paid to the state and local taxing districts for these years. In that case, the state is suing for approximately $14,000,000, with penalties and interest to be added.

In the other suit, Kentucky is claiming that the Southern Pacific owes income taxes to the state of approximately $600,000 a year for each of the years 1936 to 1943, inclusive. The state law levies an income tax on Kentucky corporations only upon income derived from sources within Kentucky, and provides for allocating income within and without the state depending upon where the income was earned. Having no lines nor business in Kentucky, officers of the company assert no contention has been made until recently that Southern Pacific was liable for this tax. In another case, the state is suing the Atlantic Coast Line, a Virginia corporation, upon the reverse theory, for income taxes upon dividends it received from the Louisville & Nashville, asserting in that suit that the dividends were produced from business of the Louisville & Nashville in Kentucky.

G. M. Strike Also Closes Electro-Motive Plant

Manufacture of Diesel-electric equipment urgently needed by railroads all over the country was summarily halted on November 21 when officers of the C.I.O. ordered all employees of the Electro-Motive division of General Motors to go out on strike and two days later set pickets to block out of the plant all hourly-rated and salaried workers until further notice.

At a meeting on November 23 between company officers and representatives of the C.I.O., Electro-Motive asked that 70 out of the 10,000 workers employed in the plant be allowed to work during the strike solely as a means of affording protection against fire and other hazards for company equipment and property valued at $15,000,000, and government machinery worth $5,000,000, plus partially-completed Diesel-electric locomotives and parts of U. S. Navy engines valued at many million dollars.

The union's reply to this request, according to company officers, was an offer to allow one foreman per shift to enter the plant, provided that such men do no work ordinarily done by hourly-rated employees. Union spokesmen added that in case of emergency, such as a fire, or a burst pipe, the management, by application to union headquarters, could arrange to get sufficient people into the plant to handle the situation.

Railway Tie Association

Owing to a conflict with other meetings, the twenty-eighth annual convention of the Railway Tie Association will be held in the Netherland Plaza hotel, Cincinnati, Ohio, on May 28-29, 1946, instead of May 7-8, as announced previously.

October Operating Revenues 15.7 Per Cent Under 1944

From preliminary reports of Class I roads representing 80.6 per cent of total operating revenues, the Association of American Railroads has estimated that the October gross totaled $556,642,617, a decrease of 15.7 per cent below the $660,101,061 reported for October, 1944. Estimated October freight revenues were $392,833,577 compared with $490,366,452, a decrease of 19.9 per cent. Estimated passenger revenues were $118,463,828 compared with $119,499,772, a decrease of 0.9 per cent.

Britain's Railway Officers Unite in a "Guild"

Officers of the British railways have formed the "British Railway Officers' Guild" (as was noted briefly in *Railway Age* of July 22, 1944, page 168) for the purpose, as the "Railway Gazette" (London) puts it, "to safeguard the collective interests of the officers and higher administrative and technical staff." The chief executive officers of the railways gave their approval to the formation of this organization, and it has now been established, with its management entrusted to an executive committee (two members from each of the four railways; two from the London Passenger Transport Board; and one from the Railway Clearing House).

In commenting upon this Guild, the "Railway Gazette" suggests that the status of railway officers has suffered in relation to that of organized labor by reason of their lack of any means "to make any concerted approach to the management or directors on vital points affecting their welfare and conditions of service."

The Guild includes pensioned officers as well as those still in service in its membership—since one of the principal purposes of the organization would appear to be to protect the pensions and other recognized conditions surrounding employment in official positions, if the Labor government of Britain goes through with its program to nationalize the railways. The "Railway Gazette" observes that railway officers will now "be able to exert a watchfulness and guardianship over their rights and privileges which, had they remained quiescent, might have been held in light esteem."

Survey Potential Air Freight in New York-New Jersey Area

A survey is currently being undertaken by the Edward S. Evans Transportation Research of Washington, D. C., in collaboration with 14 New York and New Jersey organizations, to determine potential air freight in the New York-New Jersey area. Some 15,000 concerns whose products may be suitable for air transportation will be asked the probable amount of air freight that they might ship to Florida gateways at $7 per 100 lb. and to the San Francisco gateway at $15 per 100 lb.

In charge of the survey is Col. L. H. Brittin, director of Evans Transportation Research.

The industrial organizations associated together in this survey are: U. S. Department of Agriculture; New York University, Graduate School of Business Administration; Department of Commerce, City of New York; the Port of New York Authority; the Bronx Board of Trade; the Brooklyn Eagle; Chambers of Commerce of Bergen Co., Jersey City, Paterson, Elizabeth and Newark, N. J.; Chamber of Commerce of the Borough of Queens, N. Y.; Commerce & Industry Association of N. Y.; and the New York Board of Trade.

Air Express Rate Cut

Eighteen domestic air carriers have authorized a reduction of 13 per cent in express rates to become effective January 1 over approximately 67,000 miles of routes, the Air Transport Association announced last week. The necessary supplement to Air Express Tariff No. 8 was expected to be filed with the Civil Aeronautics Board by December 1.

The announcement said that the new rates will be applicable to more than 750 points for which air express rates are published. They will cut the present basic charge of 70 cents per ton-mile to 61.4 cents. The coast-to-coast rate will be reduced from 84 cents a pound to 73 cents, while the New York-Chicago rate will drop from 24.5 cents a pound to 21.3 cents.

The minimum charge of $1 per shipment will remain in effect, and there will be no cut in so-called special commodity rates or special cargo rates.

De Camp Heads U. S. Railway Mission in Mexico

R. J. de Camp, director of the rail transportation division, transportation and economic development department, of the Office of Inter-American Affairs, has been appointed chief of the United States Railway Mission to Mexico, to succeed Elliott V. Vandercook, whose resignation to become vice-president and general manager of the Southern Pacific of Mexico is reported elsewhere in these columns. Mr. de Camp will retain his present position while serving with the Mission.

Two More States Free Highway Transport of General Taxes

The National Highway Users Conference is exulting in a recent press release that Kentucky and Pennsylvania in a referendum poll have "joined the growing list of states which are safeguarding their highway revenues by constitutional amendments which prohibit the use of motor vehicle taxes for non-highway purposes."

What this means, in effect, is that the great highway transportation business in these states is exempt from making any contribution—in lieu of *ad valorem* taxes on the property used to provide highway transportation—to the general expenses of government in these states. The victory won by the highway interests in these states

is equivalent, in terms of railroading, to the favor which would be accorded to the railroads if their roadways were exempt from taxation.

The National Highway Users Conference lists the following states, in addition to Kentucky and Pennsylvania, which now have these "anti-diversion" constitutional amendments: California, Colorado, Idaho, Iowa, Kansas, Maine, Michigan, Minnesota, Missouri, Nevada, New Hampshire, North Dakota, Oregon, South Dakota, Washington, and West Virginia. Moreover, legislatures in Indiana and Tennessee have passed these amendments but must pass them again before they can be submitted to the voters. Citizens of Texas will be given an opportunity to approve a similar amendment at the general election in 1946.

"Diversion of highway funds," says the Highway Users Conference, "remains a serious threat to improved highway transportation." So, it might be added, does paying high *ad valorem* taxes on railroad roadway remain a "serious threat" to improved railroad transportation—and the railroads are paying such taxes in 48 states, not being constitutionally exempt from contributions to general governmental expenses in 18 states, as highway transportation is.

Resume Chicago Wage Meetings

Representatives of eastern, western and southeastern railroads, and officers of 18 non-operating railroad unions have opened a series of closed meetings at the Morrison hotel in Chicago to discuss requests of the brotherhoods for increased pay and shorter hours for the unions membership. The conference began with sessions held on November 27 and 29 which were described as "only preliminary," but actual discussions of the unions' demands are expected to begin within a short time.

Teamsters' Chief Calls Off N. Y. Express Strike

With the deadline approaching on the proposed December 1 walkout of 4,000 Railway Express Agency driver and helper members of New York Local 808 and New Jersey Local 459 of the International Brotherhood of Teamsters, Daniel J. Tobin, union president, on November 27, ordered the men to remain on the job, explaining, it is reported, that the strike would be in violation of the union's constitution and would not be authorized by the general executive board.

Meanwhile L. O. Head, president of Railway Express Agency, announced on November 27 that the Agency "would accept in full, subject to similar acceptance by the union," recommendations of the Emergency Board for an increase of 10 cents per hour in pay of the employees represented by the Teamsters (retroactive to August 20, 1945). The Agency further agreed upon changes in a local rules agreement covering the express vehicle employees in the New York metropolitan district. These increases, explained Mr. Head, would apply to vehicle employees in the New York metropolitan district, Newark, N. J., Philadelphia, Pa., Cleveland, O., Cincinnati, O., Chicago, St. Louis, Mo., San Francisco, Calif., and in a number of smaller places in the vicinity of these cities.

Announcement of the strike plan of the 4,000 members of the New York and New Jersey locals was made November 26, following a closed union meeting held the previous day at Manhattan Center, in New York. Details of the Emergency Board decision were announced in the *Railway Age* of November 10, page 763. At the Sunday meeting, local union officials attempted to dissuade the group from taking any action before a "lawful" 30-day period had elapsed following the Presidential board's recommendation.

In making his announcement November 27, Mr. Head stated that the Agency's decision had been sent to the chairman of the National Mediation Board, and to the International Brotherhood of Teamsters.

2nd Quarter Loading Estimates Missed by 0.1 Per Cent

Regional Shippers Advisory Boards overestimated carloadings for this year's second quarter by 0.1 per cent, according to the latest comparison of the forecasts with actual loadings, which has been issued by W. C. Kendall, chairman of the Car Service Division, Association of American Railroads. The variations by individual boards ranged from an overestimate of 8.6 per cent to an underestimate of 13.6 per cent, while the variations by commodities ranged from an overestimate of 19.9 per cent to an underestimate of 44.7 per cent.

The net result, showing the 0.1 per cent overestimate, compares with an overestimate of 2 per cent for the same quarter last year. For this year's first quarter there was an overestimate of 2.8 per cent. Second-quarter comparisons for the 13 regional boards are shown above.

Comparison National Forecast with Actual Loadings—Second Quarter 1945

Board	Carloadings Second Quarter 1945		Percentage of Accuracy	
	Estimated	Actual	Over Estimated	Under Estimated
Allegheny	1,106,549	1,076,995	2.7	
Atlantic States	675,813	617,528	8.6	
Central Western	216,270	243,110		12.4
Great Lakes	513,741	491,552	4.3	
Midwest	935,461	908,379	2.9	
New England	96,777	98,350		1.6
Northwest	757,707	705,078	7.0	
Ohio Valley	970,482	963,536	0.7	
Pacific Coast	300,996	312,704		3.9
Pacific Northwest	246,486	238,489	3.3	
Southeast	799,297	862,309		7.9
Southwest	554,194	607,078		9.5
Trans-Mo-Kansas	312,641	355,045		13.6
Total All Boards	7,486,414	7,480,153	0.1	

Another tabulation by commodities showed that the 44.7 per cent underestimate, noted above, was on loadings of "other fresh fruits," while the 19.9 per cent overestimate was on loadings of hay, straw and alfalfa. The other nine overestimates by commodities were less than five per cent in all cases except two—citrus fruits, 17.5 per cent, and coal and coke, 6.6 per cent. Nine of the 16 underestimates by commodities were off by more than 10 per cent.

Strike Forces Pullman to Use Cots in Army Sleepers

Because a nine-week strike in the plant of the Simmons Company at Kenosha, Wis., has completely stopped production of berths such as are installed in troop sleeping cars, the Pullman-Standard Car Manufacturing Company will equip more than 300 of these cars with Army cots and mattresses. Use of these cots was ordered by the Defense Plants Corporation and approved by military authorities.

Pullman reported that, because of the strike at the Simmons plant, 300 troop sleeper cars have been standing idle at its Hammond, Ind., plant for several weeks. This total is being increased approximately 15 cars daily from the Pullman-Standard construction lines at Michigan City, Ind.

Meeting of U. S. Chamber's Transport Committee

The Transportation and Communication Department Committee of the Chamber of Commerce of the United States held a two-day meeting in Washington, D. C., last week, much of the discussion being focused on the list of suggested topics on which the House interstate and foreign commerce committee is seeking comment in connection with its proposed transportation investigation. Members of the House committee were guests at a dinner session.

Other subjects considered included pending legislation affecting transportation and "a program for promoting further cooperation among shippers and carriers of all types," according to the November 26 issue of "Business Action," weekly publication of the chamber. The report of the meeting also had this to say:

"There was general agreement that the prospective reduction of traffic volume from the recent unprecedented levels will confront a large proportion of the carriers with most serious financial problems, due particularly to increased operating costs, large expenditures necessary to make up arrears in maintenance deferred because of material and manpower shortages during the war and, in addition, substantial expenditures required for modernization essential to meet growing demands for the most improved service.

"These prospects, it was recognized, call for full examination of all aspects of national policies having a bearing upon the future ability of carriers of all types to serve the public. A particular need was pointed out for observance by governmental agencies of national transportation policies declared by Congress, some agencies having shown a tendency to take independent action regardless of and inconsistent with those policies."

Eases Auto Car Restrictions

Because of slackening demand for box cars fitted with automobile loading devices resulting from strikes in manufacturers'

plants, the Car Service Division of the Association of American Railroads has modified, at least temporarily, its stringent directions applying to the return of such cars to owning roads, reported in *Railway Age* of November 17, page 836. Instructions applying to cars of specified ownership and number which have not been re-equipped with loading devices remain unchanged, but cars which have been so equipped may be loaded to owner road or returned empty by service route or short route. The supplemental directions also provide that such cars on home rails should not be used for loading beyond the limits of the home road.

Southern Sympathetic Strikers Now Total 1,000 Machinists

More than 1,000 machinists are now out on strike at various points along the Southern System, following a jurisdictional dispute begun November 19 at Birmingham, Ala., when 200 machinists walked out after electricians at that point had been assigned repairs to a motor on a Diesel locomotive. Both crafts claimed the work. A statement from the railway's headquarters in Washington on November 26 explained the work had always been done by electricians at this point, and was entirely "in accordance with the railway's agreement with the Federated Shop Crafts." The walkout, the railway asserted, is in violation of an agreement not to suspend work pending the settlement of a grievance.

Observing a further point of the agreement between the railway and the Federated Shop Crafts, that management will not attempt to settle such jurisdictional disputes, the railroad reports that it has complied with this provision to the letter. The railroad further reveals that it notified the grand officers of the crafts involved at the time of the strike, and asked that the dispute be settled.

On November 25, the railroad states, the machinists' executive committee asked the local chairman of the machinists at all other shops on the System to poll their membership to determine whether they would support the action of the Birmingham machinists. As a result, the report goes, machinists at Spencer, N. C., Atlanta, Ga., Greenville and Hayne Car Shop, S. C., Macon, Ga., Princeton, Ind. and, various other points are now on sympathetic strikes.

Freight Car Loading

Loadings of revenue freight for the week ended November 24 totaled 716,494 cars, the Association of American Railroads announced on November 29. This was a decrease of 83,867 cars or 10.5 per cent below the preceding week (which included the Thanksgiving holiday), a decrease of 51,844 cars, or 6.1 per cent below the corresponding week last year, and a decrease of 103,338 cars or 12.6 per cent below the comparable 1943 week.

Loading of revenue freight for the week ended November 17 totaled 800,361 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading

For the Week Ended Saturday, November 17

District	1945	1944	1943
Eastern	151,355	161,490	167,397
Allegheny	171,877	189,304	193,776
Pocahontas	56,831	55,228	59,136
Southern	125,761	129,970	126,605
Northwestern	103,065	107,975	115,121
Central Western	127,615	141,199	139,229
Southwestern	63,857	78,826	81,023
Total Western Districts	294,537	328,000	335,373
Total All Roads	800,361	863,992	882,287
Commodities			
Grain and grain products	55,889	52,035	55,055
Live stock	25,005	24,317	22,397
Coal	172,053	174,816	188,273
Coke	12,832	14,143	15,218
Forest products	31,448	41,452	45,883
Ore	32,787	40,025	49,070
Merchandise l.c.l.	115,924	108,969	106,346
Miscellaneous	354,423	408,235	400,045
November 17	800,361	863,992	882,287
November 10	838,218	839,504	847,972
November 3	851,962	893,069	754,739
October 27	854,779	916,485	883,727
October 20	773,427	966,005	905,419
Cumulative Total, 46 Weeks	37,638,367	38,940,875	37,890,714

In Canada.—Carloadings for the week ended November 17 totaled 74,093 as compared with 75,304 for the previous week and 77,646 for the corresponding period last year, according to the compilation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connecti...s
Totals for Canada:		
November 17, 1945	74,093	32,648
November 18, 1944	77,646	40,005
Cumulative Totals for Canada:		
November 17, 1945	3,218,895	1,611,481
November 18, 1944	3,260,038	1,770,333

Tate Heads Treasury Division

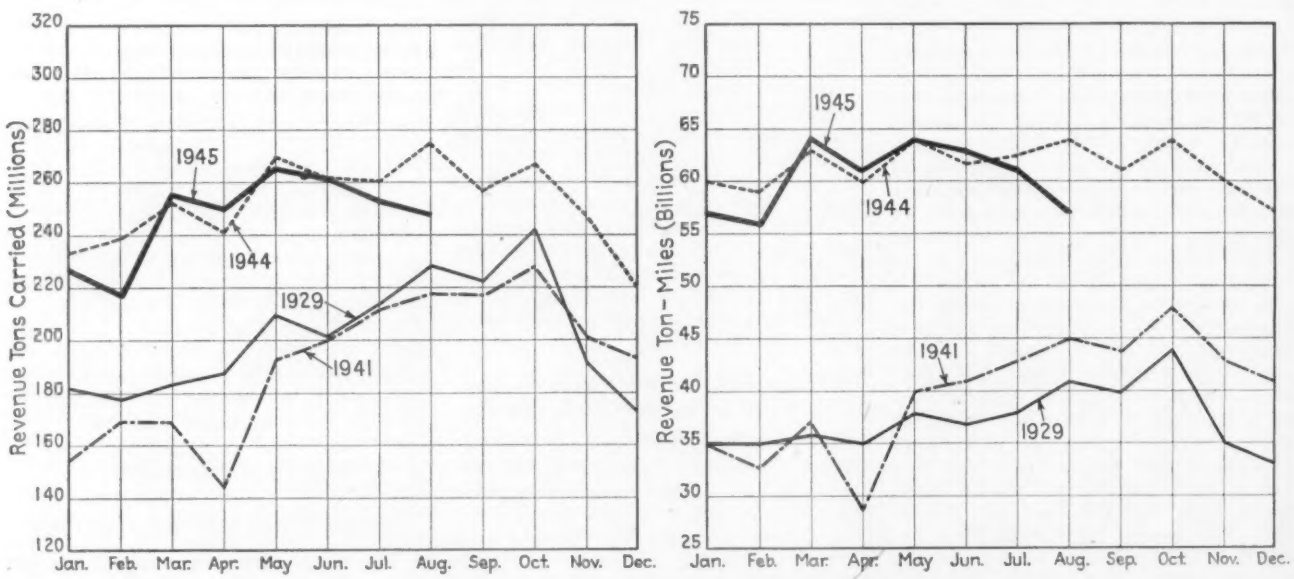
A. E. Tate, treasurer of the Southern, has been elected chairman of the Treasury Advisory Committee and of the Treasury Division, Association of American Railroads. Mr. Tate, who succeeds C. Nyquist, secretary and treasurer of the Chicago, Rock Island & Pacific, was chosen at a recent New York meeting of the advisory committee which has collaborated with the A.A.R. Finance, Accounting, Taxation and Valuation Department in administering affairs of the division since the last annual meeting in 1941.

At the same session the committee approved a proposal that the division hold an annual meeting in 1946. It authorized Chairman Tate to appoint a committee to investigate and report on suggested places and dates for such a meeting.

Two Southern-Sponsored M.R.S. Outfits to Be Deactivated

Soon to be deactivated are the 707th Railway Grand Division and the 727th Railway Operating Battalion sponsored by the Southern, and soon to sail for home from the European Theater of Operations. In a letter to Ernest E. Norris, the railway's president, Maj. Gen. Frank S. Ross, chief of transportation, declared they had "made a splendid contribution to our common mission."

He said of the 707th Grand Division that it had "carried a large share of the burden of supplying the Allied armies, transporting prisoners-of-war to rear areas, and after the end of the war carrying personnel due for re-deployment from the interior of the continent to staging areas." Since



Revenue Tons and Revenue Ton-Miles—1945 Compared with 1929, 1941 and 1944

June, the unit, which had moved to headquarters at Herne, Germany, has been supervising and operating German railroads in that area, and as General Ross put it, "with the mission of making the system self-sustaining."

The general observed that the 727th outfit, in its base at the Lyon yards, in France, had done a "notable job of clearing railway lines and routing traffic over the tracks left by the Germans." One of the first battalions to operate through Lyon, the 727th "served as an excellent liaison unit with the French railroads," he observed, with members of the outfit riding every train running over the division, checking on movements generally and reporting any delays, bad orders and the like. It assisted also in rehabilitating track, bridge and signal communications.

Pay Increase Ends S. P. of Mexico 2-Day Strike

A strike of employees of the Southern Pacific of Mexico, which was called on November 14, ended two days later when a compromise salary increase was granted by the company. Shortly after the railroad placed an embargo on all passenger freight and express services, negotiations were opened and, with the Department of Labor acting as arbitrator, an agreement between management and the employees was reached.

At the same time it was learned that a threatened strike of employees of the Mexican Railway was averted when, acting upon recommendations of the Department of Labor, that railroad granted a pay increase of 49 pesos per month. The workers had previously demanded a pay boost of 75 pesos but agreed to accept the compromise settlement rather than go out on strike.

C. N. J. Offers Vacated Stations as Community Centers

With the abandonment on December 1 of a six-mile stretch of the Jersey Central Lines' seashore branch (see *Railway Age*, November 24, page 880), William Wyer, chief executive of the railroad, announced that if residents at Sea Bright, Monmouth Beach, North Long Branch and East Long Branch so desire, the Jersey Central will seek court authority to donate all four railroad stations in the affected area to these communities as clubhouses for Boy Scouts, or similar youth groups.

Commenting upon the abandonment order by the Interstate Commerce Commission, Mr. Wyer observed that, while there will not be direct railroad service to the communities listed, the remaining service will be "much more dependable for them and other seashore branch communities under the new set-up" (with Highlands the terminating point). Nine times in the past year, he explained, service was disrupted from several hours to as long as a week on this branch due to erosion and repeated storm damage.

"When a storm has interrupted operations," he explained, "it has been necessary to move locomotives, cars and crews from East Long Branch via the New York & Long Branch R. R. and Matawan to just above the affected stretch. There is very little advance warning, so that delays have been inevitable on the portion of the branch not directly affected by the storm.

"Under the new set-up, with Highlands the terminating point, such storms should not affect our operation, because the trains and crews will be ready to operate without having to make unusual, unscheduled moves," he said. "As a result, there should be a considerable improvement in the dependability of our service on the remainder of the seashore branch, while New York & Long Branch trains are still available to all who wish to use them. The maximum distance to train service from any point in the affected stretch will be only three miles, and in many cases less, and all points will have convenient bus service to nearby rail stations," he added.

Expressing the railroad's regret at the necessity to apply for abandonment, Mr. Wyer stated that "already in bankruptcy," the Jersey Central could not afford the losses encountered on this branch. The estimated loss for 1943, 1944 and the first five months of this year amounted to $288,-194, he said, while an expenditure of about $611,000 would have been required for continued operation.

Traffic Club of New York Elects Officers

At the annual meeting of the Traffic Club of New York, November 26, J. P. Krumech, traffic manager, American Car & Foundry Co., was elected president; H. L. Lauby, eastern traffic manager, Union Pacific, was chosen first vice-president; and W. E. A. Flanagan, assistant to the vice-president, traffic, General Foods Corp., second vice-president.

Elected to the board of governors were: A. G. Anderson, general traffic manager, Socony Vacuum Oil Co.; J. W. Brennan, eastern traffic manager, Chicago, Burlington & Quincy; and James W. Harley, director of traffic, United States Rubber Co.

Officers re-elected were: H. H. Huston, general traffic manager, American Can Co., treasurer; and George H. Burtis, assistant traffic manager, Luckenbach Steamship Co., secretary.

This poem is dedicated to the memory of my buddy, Sgt. George E. Brown, who was killed in the cab of a locomotive by a strafing German plane at Landen, Belgium, on Dec. 24, 1944.

Written by Pfc. Harold A. White
Company B. 735th R.O.B.

A BUDDY GONE HOME

'Neath a small white cross,
'Neath the damp, dark loam,
There lies a soldier in Belgium,
A buddy of mine; gone home.

I met him first on the drill field,
In the glory of a summers dawn,
Our friendship was a thing of beauty,
As sweet as an autumn morn.

When we shipped, we were together,
Our destination was unknown;
And we sat and cursed this struggle,
That had taken us from our home.

On the day we arrived in France,
We landed side by side,
While the rain around us fell,
In an ever-rising tide.

We pushed onward, through the mud and grime,
A smile was on his face;
Yet his eyes were a blazing fury
And his heart was out of place.

I know because I saw these things,
I think I was the same;
This time we played, we knew, for keeps;
It was a different game.

'Twas on Xmas Eve I lost him,
I did not see him fall.
A Heinie plane dove overhead,
He was not within my call.

Then I finally found him,
On the cab floor he was dead,
Then I knew his was eternal sleep,
With two bullet holes through his head.

O Lord above, be merciful,
To him, this buddy of mine,
Till we meet again at Heaven's gate,
In a friendship not ending with time.

Chicago Anti-Smoke Law Costs Three Railroads $550

Found guilty of violating the Chicago anti-smoke ordinance, three railroads last week were fined a total of $550 by Judge Francis Borrelli, who later set January 7 as the date upon which will be held a hearing on a motion to vacate the fines. The three roads, as reported in the *Railway Age* of November 24, are the Chicago, Milwaukee, St. Paul & Pacific, the Chicago & North Western, and the Pennsylvania.

Attorneys for the three railroads did not deny the violations, explaining to the court that the condition was brought about by poor war-time coal, inexperienced firemen and carelessness of engine crews. At the same time other representatives of the roads declared their respective companies were purchasing Diesel-electric equipment as rapidly as possible with the end in view of eliminating the smoke nuisance. Judge Borrelli then announced that it was the practice of the court to vacate fines of this nature providing there were no more complaints and that "all due efforts" were made to comply with the law.

The Chicago ordinance provides that there shall be no smoke from chimneys or locomotives within the city limits except when fires are being started or flues being cleaned, at which time smoke may last a maximum of six minutes.

The fines were assessed as follows: The Milwaukee and the North Western, each $100 and $10 costs on each of two counts, and the Pennsylvania $100 and $10 costs on one count.

P. R. R. Reports Increasingly High Military Movements

With military travel on the Pennsylvania "heavier than ever before," C. H. Mathews, Jr., passenger traffic manager, has announced the "final peak probably will not be reached until some time in January or February," and military demands upon passenger facilities will remain "extremely heavy" until late spring.

Since Pearl Harbor this railroad has carried 16,569,236 service men and women, either in groups or traveling individually on military business. This has required the operation, Mr. Mathews said, of 27,757 extra trains, while additional large numbers of trips have been made in special cars attached to regular trains, as well as by individuals riding in cars open to civilians. There is no figure available on the millions of other trips made by service men traveling on furlough for personal reasons, he added.

More than 2,000 of the Pennsylvania's

coaches are in constant military use, frequently making extended trips outside of the railroad's own territory. Besides the 65 per cent of space occupied by the military in Pullman sleepers, numerous berths in cars on regular P. R. R. trains are also reserved for the armed forces.

Four new high marks have been set in military travel on the Pennsylvania since mid-summer, Mr. Mathews stated. For the week ending August 25, 141,394 military passengers were handled; the week ending September 15 brought an increase to 147,646; that ending September 22 totaled 147,831; while passengers carried reached a record peak in the week ending November 10, with the total rising to 169,687.

A Collection of Santa Fe Photographs

An interesting collection of reproductions of photographs taken on the Atchison, Topeka & Santa Fe has been published by the Kalmbach Publishing Company, Milwaukee 3, Wis., as No. 12 in its series of "Trains Album of Photographs." A page of text matter outlining operating conditions, and new equipment and line improvements, accompany the photographs which are illustrative of freight and passenger operations on the Santa Fe.

The photographs, which are good, clear prints, are printed on glossy 10 in. by 14 in. pages. Some pages contain one photograph, and some, two. The booklet is priced at $1.

Other publications in this series have similarly featured the Pennsylvania, the New York Central, the Southern Pacific, the Baltimore & Ohio, the Erie, and the Great Northern—and carriers grouped by geographical regions.

Bronze Star Medals Awarded 4 Former N. & W. Employees

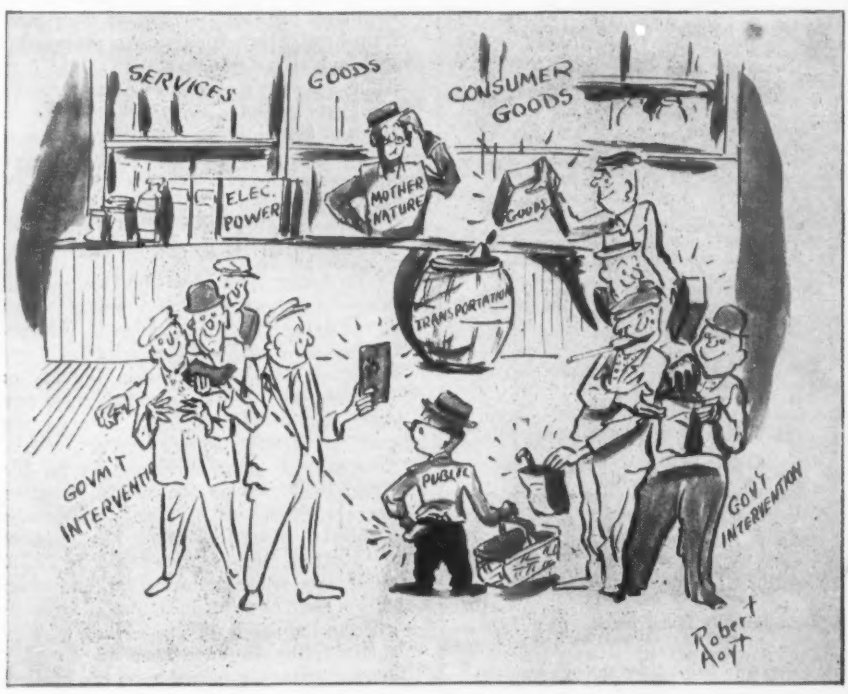
In ceremonies at Namur, Belgium, Lt. Col. Miles G. Stevens, commander of the Norfolk & Western-sponsored 755th Railway Shop Battalion, recently awarded the Bronze Star Medal to four former N. & W. employees. The citations went to Capt. Carl C. Godsey, "B" Company commanding officer, and once in the Roanoke shops of the N. & W.; to Capt. Foster Musser, erecting and machine shop superintendent for the battalion, and a former machinist in Roanoke; to 1st Lt. Duffield R. May, railway machine shop superintendent, and, before induction, a machinist at Roanoke; and to Capt. Frederick Stiff, company commander of Headquarters company, once a section storekeeper at Roanoke.

In his citation, it was noted that Captain Godsey had displayed "remarkable devotion to duty and concentration to his job" . . . accepting a "considerable amount of responsibility." It was said of Captain Musser, who received his award for service from October 18, 1944, to May 8, 1945, that his "ambition and ability to coordinate repair echelons under his command greatly aided in the maintenance of a high level of production achievement."

The award to 1st Lt. May for service as railway machine shop superintendent from October 12, 1944, to May 8, 1945, noted that "through the use of old and reclaimed parts in repairing locomotives, he successfully maintained a steady flow of supplies to our troops during a critical period of operations."

Of Captain Stiff it was said he displayed "exceptional abilities of leadership and sense of fair play," maintaining a "flow of entertainment through shows, dances and movies to keep the morale of his men at a high point during times of great stress," contributing materially "towards the successful record of his organization."

* * * *



Why Doesn't the Customer Deal Directly with the Merchant and Cut Out the Costly Middlemen?

Urges Use of Gondolas and Flats for Xmas Trees

Railroads have been asked by Chairman Warren C. Kendall of the Car Service Division, Association of American Railroads, to urge shippers to use gondolas or flat cars so far as possible for loading of Christmas trees this year. The request came in a November 20 circular which noted that it was a reversal of the position taken during the past two Christmas seasons when there were heavy demands for gondolas and flats to meet requirements for loading of military equipment and war materials.

Thus the request in 1943 and 1944 was that only rough-freight, plain or automobile box cars be furnished for Christmas tree loading. This year, as Mr. Kendall put it, the supply of box cars "is extremely tight with some deficiencies being reported," whereas the supply of gondolas and flats since V-J Day "has been fully adequate to protect all requirements."

Club Meetings

The Western Railway Club will meet at 6 p. m., December 15, at Hotel Sherman, Chicago, for its "Annual Ladies' Night Christmas Party."

The Central Railway Club of Buffalo (N. Y.) will hold its 57th annual installation of officers and dinner, at 7 p. m., January 10, at Hotel Statler, in that city. W. J. Sheridan, assistant general freight agent of the Baltimore & Ohio, will be honored as retiring president.

"Canadian Railways in War and Peace" will be discussed by D. C. Coleman, chairman and president of the Canadian Pacific, when the Canadian Railway Club meets at 8 p. m., December 10, at Mount Royal hotel, Montreal.

The Car Foremen's Association of Omaha, Council Bluffs and South Omaha Interchange will meet in the Chicago, Great Western freight house at Council Bluffs, Ia., December 13.

The Pacific Railway Club has announced its "Annual Associate Members Holiday Entertainment" for 7:30 p.m., December 12, at El Jardin, 22 California street, San Francisco. There will be the yearly original skit and refreshments.

The Northwest Car Men's Association will meet at 8 p.m., December 3, at the Midway Club, 1931 University avenue, St. Paul, Minn. T. M. Ulery, inspector 11th District of the Bureau of Explosives, will discuss "Explosives in General and Safe Transportation of Them and Dangerous Articles."

NEW MENUS DAILY.—The New York, New Haven & Hartford, in what it believes to be the first such attempt by a railroad, has decided to depart from the usual procedure of bi-monthly or monthly changes, and has inaugurated on its dining cars a daily change of printed menus. Heretofore, the only variable item has been the daily chef's suggestion. The new menu now bears *table d'hote* entrees for the day, and a supplementary *à la carte* menu for standard items and beverages is available.

With the Government Agencies

I. C. C. Seeking More Funds from Congress

Wants to study waybills—Mediation Board also after deficiency funds

In reporting to the House of Representatives the first deficiency appropriation bill for the fiscal year 1946, the appropriations committee has recommended an additional provision for the Interstate Commerce Commission of $301,000, as compared to $565,000 requested in the Budget estimates. The total appropriation proposed in the committee report is $1,131,552,312, a reduction of $576,142,136 from the Budget estimate.

Additional funds for commission activities were listed in four categories. The committee met the Budget estimates for two of these, with a recommendation of $50,000 more for the commission's valuation work and of $45,000 to meet increased costs of printing and binding. A request for $164,000 for personnel and other added expense for motor transport regulation was rejected. The recommendation for general administrative expenses was $206,000, a reduction of $100,000 from the request. In its report, however, the committee commented that the additional appropriations thus recommended should enable the commission to conduct its work "with a reasonable degree of dispatch" until its requirements can be more carefully canvassed by the subcommittee for independent offices.

Foresees More Complaints—The committee heard from several members of the commission and Secretary W. P. Bartel when the deficiency appropriations were under consideration. Their testimony in general was to the effect that the commission's operating expenses had fallen off somewhat during the war, for two reasons: (1) it was impossible to maintain a staff large enough to keep its work up-to-date while the armed forces and war industries were drawing so heavily on the manpower supply, and (2) the commission was under less pressure from the public, in the form of complaints, new tariffs, and other routine activities, during the war, both because the man-power situation in industry and among the carriers reduced their facilities for processing such work and because rates were of less importance than usual to industry and to the carriers while the war was in progress and normal competitive situations were upset.

With the return to peace-time conditions, however, the committee was told, a great increase in the volume of work to be handled by the commission is inevitable. At the same time, it will become increasingly necessary, in order that it may perform its statutory functions with reasonable promptness and proficiency, for the commission to get its statistical work and its machinery for processing complaints, tariffs, and investigations more nearly on a current basis that was possible, or expected, during the war, according to the testimony of its spokesmen.

Waybill Analyses—One phase of commission statistical work which it indicated it plans to expand considerably is that dealing with analyses of railroad (and later of motor carrier) waybills. The commission proposes, the committee was informed, to set up for this purpose a Waybill Section in the Bureau of Transport Economics and Statistics, the primary purpose of which will be to develop rate-structure analyses for use in rate cases and as a foundation for more adequate cost studies. In addition, it was pointed out, the data so accumulated will have a wide general interest and application, as in traffic flow studies for regions, localities, or commodities. "There is almost no economic subject of such general interest and importance as commodity movements, on which there is at the same time so little actual information available," the commission's statement pointed out.

The committee also recommended an additional appropriation of $23,900 for the National Mediation Board, the amount requested through the Budget estimate, for arbitration, emergency, and emergency panel boards. In commenting to the committee on the board's need for more funds, Secretary Robert F. Cole remarked that it had been necessary during the past 12 months for the board to set up more emergency boards and more arbitration boards than ever before for a similar interval in its history.

(*Continued on page 914*)

Leavey Succeeds Gross as Army Transport Chief

Maj. Gen. Edmond H. Leavey assumed command of the Army Transportation Corps as chief of transportation on December 1. He succeeds Maj. Gen. Charles P. Gross, who retired to become chairman of New York City's Board of Transportation, which operates the city-owned rapid transit system.

A regular army man, General Leavey was graduated from West Point in 1917. During World War II he served in both the European and Pacific theaters, being the officer who accepted for General MacArthur the surrender of Japanese forces in the Philippines.

General Gross had headed the Transportation Corps since its inception as a separate branch of the service early in the recent conflict.

New C.M.St.P.&P. Takes Over Property

Meanwhile Congress gets more proposals for equity holders' relief

Ending more than 10 years of reorganization planning, the Chicago, Milwaukee, St. Paul & Pacific returned to private ownership on December 1, following the issuance of orders by United States District Judge Michael L. Igoe that all properties of the road be turned over by court trustees to the new corporation. At the same time the court approved the appointment of five voting trustees and authorized the filing of charter amendments with the Wisconsin secretary of state to permit the issuance and exchange of securities.

The five voting trustees, who have the power to select the railroad's directors, are: Walter J. Cummings, chairman of the Continental Illinois National Bank & Trust Co.; John D. Allen, vice-president, Brink's, Inc.; Elmer Rich, president, the Simonize Company; Leo T. Crowley, chairman, Standard Gas & Electric Co., and James M. Barker, chairman, All-State Insurance Company. They are all of Chicago. The following 11 men have been invited to become directors in addition to the five voting trustees: William J. Corbett, president of the C. W. Marks Shoe Company, Chicago; William J. Froelich, Chicago attorney; John B. Gallagher, Chicago; James T. Gillick, chief operating officer of the Milwaukee at Chicago; Joshua Green, Seattle, Wash.; A. B. Keller, vice-president and treasurer, International Harvester Company; William L. O'Brien, vice-president, Fred J. Ringley Company; J. Otto Stoll, president of J. O. Stoll Company, all of Chicago, and H. A. Scandrett, trustee of the Milwaukee, and A. N. Whitlock, its general counsel.

The first meeting of the new directors will be held on December 3 at the railroad's offices in Chicago, at which time it is expected that plans will be made toward speedily making the new securities available for exchange.

Reorganization plans of the Milwaukee have been under way since June, 1935, and the first outlined plan was approved by the U. S. District court five years later. It was then appealed to the U. S. Supreme court which, though approving the plan in principle, remanded it to the Interstate Commerce Commission for certain corrections in March, 1943. A revised plan was then offered and on June 30, 1944, was approved by Judge Igoe.

The final financial statement of the court trustees, which will be before the new board when it meets, is as follows:

Net operating income for October was

$2,246,635, a decrease of $841,779 compared with October, 1944. Gross for the system was $20,055,676, a decrease of $376,145 as against October one year ago. Net income after fixed charges and contingent interest was $478,525, a decrease of $856,244 compared with October of last year. Other figures appear in the accompanying table.

	1945	1944	Increase + or Decrease −
October gross	$20,055,676	$20,422,821	−$367,145
October net railway oper. income	2,246,635	3,088,414	−841,779
October net income after fixed charges and contingent interest	478,525	1,334,769	−856,244
Ten months gross	193,995,291	189,118,193	+4,877,098
Ten months net ry. oper. income	23,749,869	27,050,097	−3,300,228
Ten months net income after fixed charges and contingent interest	6,727,453	9,444,715	−2,717,262

Judge Igoe's order came only a few days after he had announced his intention to postpone "indefinitely" the proceedings scheduled to bring about consummation of the reorganization. The delay was occasioned, it is understood, by the introduction in Congress of proposed legislation for the benefit of equity holders in a number of railroads which have been involved in bankruptcy proceedings. It was reported that, on further consideration, the court reached the conclusion that these legislative activities did not justify further delays in the Milwaukee reorganization.

A resolution which, among other provisions, "requested" the Interstate Commerce Commission and the federal courts concerned to "suspend further action" in certain railroad reorganization proceedings was introduced November 21 in the House by Representative Reed, Republican of Illinois. The measure, House Resolution 403, was referred to the House rules committee, and comment from some quarters suggested that committee action on it was likely to be deferred indefinitely.

The preamble to the resolution stated that "a large number" of the railroad reorganization plans formulated in connection with proceedings affecting, it said, approximately one-third of the country's mileage provide for voting trusts, assigning voting rights pertaining to new company stocks to a few voting trustees. It stated further that large amounts of these new stocks are allocated to "a few large bond holding corporations whose officers may be selected as voting trustees," or otherwise are so allocated that substantial holdings are concentrated under the control of "large corporations or institutions." The result of this situation, it continued, is that "a few large corporations or institutions are or will be enabled to control or influence the management" of these reorganized railroads, a condition "contrary to the general public interest and sound public policy."

In view of the circumstances recited, the resolution would authorize the House committee of the judiciary (of which Representative Reed is a member) to investigate all railroad reorganization plans now pending before the commission or the federal courts, and all such plans approved and confirmed since January 1, 1940, to inquire into the assignment of voting stocks and the relationship between the insurance companies, banks, trustees, holding companies and other institutions to which the stocks are issued. If the investigation convinces the committee that these voting trust arrangements have resulted or may result in control of substantial amounts of rail mileage by "large institutions or fiduciaries," then it is instructed to propose legislation to "assure free competitive conditions" among reorganization companies.

Following the introduction of this resolution, Mr. Reed on November 23 introduced a bill (H. R. 4779) providing that any railroad undergoing reorganization under section 77 of the Bankruptcy Act should be returned to its owners, under certain conditions, if it has produced "average annual earnings" during a period of seven calendar years sufficient to pay its fixed charges during those years. The conditions require the road then to effect a suitable adjustment of its financial structure by negotiation with security owners, making reductions in fixed charges as required by circumstances and issuing new securities if necessary, within a period of 18 months after trustee control is relinquished, subject to the court's right to extend the time limitation. If such debt adjustment is completed, the section 77 proceedings are to be dismissed by the court; otherwise the trustees are to resume control of the property.

This bill was referred to the judiciary committee for consideration, and prospects for action on it were considered to be more favorable than on the resolution, because of the bill's sponsor's committee membership. Meanwhile the so-called Hobbs bill (H. R. 37) to afford equity holders in bankrupt roads somewhat greater opportunity to participate in reorganizations than they now enjoy remains in Senate committee hands, following its passage by the House February 14. Some suggestions have been heard that Representative Reed's recent proposals may have been made with a view to obtaining some action on the Hobbs bill. Meanwhile other proposed legislation to modify reorganization procedures is pending, including a bill (S. 1253) to provide for readjustment of debt and interest requirements without going through judicial reorganization processes which Senator Wheeler, Democrat of Montana, chairman of the Senate committee on interstate commerce, introduced at the request of the I. C. C.

R. E. A. Qualifies as Carrier on Star Routes

Reporting for the third time on Railway Express Agency arrangements with star-route mail carriers for the transportation of express, the Interstate Commerce Commission has found that R.E.A. has now drafted a contract which makes it the carrier under the rule of the Dixie-Ohio case. That rule stipulates in effect that an applicant proposing to use vehicles owned by another will not be accorded carrier status unless it can show that the vehicles will be operated under its direction and control and its responsibility to both the shipper and the general public.

The proceedings involve R.E.A. applica-

"52 For 40"

Labor Leader: "We demand 52 hours' pay for 40 hours' work."

Second Labor Leader: "Our boys want the same—no reduction in 'take home.'"

Bystander: "You seem to agree. If your men get 52 for 40, I take it that you would be willing for all others to get the same."

Both: "Sure. We are all Americans. When the mine workers and the stevedores get theirs, we get ours, and vicey verse."

Bystander: "You wouldn't leave out the farmers?"

Both: "The farmer is entitled to his cut, too."

Bystander: "And the non-union workers, should they get 52 for 40?"

Both (scratching their heads): "We can't say 'no' to that. But they should join a union."

Bystander: "52 for 40 for everybody?"

Both: "That's right. It would be a great country if everybody got 52 for 40."

A few months pass.

The first labor leader is driving his family through the lovely countryside. He stops at a filling station and orders 5.2 gallons of gasoline. The filling station man puts 4 gallons in the tank. "40 for 52," he said. "Drive on."

Winter comes on. The coal miners have had a raise, and a strike has cut down the tonnage of coal. The second labor leader goes down to the coal yard and orders 5 tons. The coal dealer replies, "O.K. I will send up four—40 for 52."

A third labor leader has a wife and three kids. All five walk into a shoe store. "We want a fit all around." The shoe man says: "You pay for 5 pairs and get 4—40 for 52." "That ain't fair," says the labor leader. "I know it ain't fair, but shoes have gone up, and all I can sell you is four pairs for the price of five." The labor leader's wife speaks up: 'Well, *I* am not going barefoot! And neither are the kids." They buy four pairs. The labor leader wonders when barefoot days will come again.

Here, in simple terms, is the nation's problem. It is subject to qualifications. If everyone worked harder in peacetime so as to produce as much in 40 hours as he did in wartime working 48 hours (with time and a half over 40 hours or 52 hours' pay), then it would be possible to pay "52 for 40" without raising prices. But no one is going to work harder in peacetime than he did under the stress of war.

—Samuel B. Pettengill

tions for certificates covering highway operations in substitution for discontinued train service on Illinois routes between Springfield and Waggoner, and Springfield and Palmyra, the title case being No. MC-66562 (Sub. No. 356). The first adverse report was by Division 5, while the second, noted in the *Railway Age* of November 11, 1944, page 736, was by the full commission. The present favorable decision follows submission by R.E.A. of a new form of contract which it proposes to enter with the star-route truckers. Meanwhile the certificate contains the usual restrictions designed to insure that the highway service shall remain auxiliary to railway express service.

The dissents of Chairman Rogers and Commissioner Lee are noted.

Refuses to Broaden Probe of Wool Rates

The Interstate Commerce Commission has refused to broaden its No. 28863 investigation of freight rates on wool and mohair throughout the United States to include the rates and practices of motor and water carriers. The refusal came in an order denying a petition filed by the respondent railroads.

Order Cutting Rates on Armor Plate Modified by I.C.C.

Reporting on reconsideration of its recent decision cutting freight rates on armor plate of less than three inches in thickness to the commercial-steel basis while prescribing 115 per cent of that basis for plates of three inches or more in thickness, the Interstate Commerce Commission has modified its findings to provide that future rates within Official territory will be in conformity with the decision if they are related in the foregoing manner to the commercial-steel basis prescribed in *Iron and Steel Articles*, 155 I. C. C. 517, 161 I. C. C. 386. Thus the Official-territory rates on armor plate will not have to follow the present rates on commercial steel in instances (mainly for distances of less than 100 miles) whert the latter have been cut below the *Iron and Steel Articles* basis "because of special conditions which obtain as to commercial steel."

The commission's reconsideration of the case followed a petition filed by railroads in Official territory; and the present report concluded that "it is not proper to assume that the special conditions which prompted the establishment of the reduced rates on commercial iron and steel also exist as to the armor plate."

A brief concurring opinion was filed by Commissioner Miller with whom Commissioner Patterson agreed. Commissioner Porter did not participate in the disposition of the proceedings on reconsideration. The title case is No. 29067, and the commission's prior report was noted in the *Railway Age* of September 15, page 458.

Emergency Board in N. P. Case

Chairman H. H. Schwartz of the National Railway Labor Panel has appointed an emergency board to investigate a dispute between the Northern Pacific and its dining car employees represented by the Order of Railway Conductors. The dispute involves a demand of the union for a reduction in the number of hours comprising a basic month's work for the dining car employees—with no cut in "take-home" pay. Hearings before the emergency board are scheduled to begin at St. Paul, Minn., on December 4.

Allows Greyhound to Purchase Wisconsin Bus Line

Purchase by Northland Greyhound Lines of bus operating rights and property of Wisconsin Power & Light Co., and acquisition of control thereof by the Greyhound Corporation through such purchase, have been approved by Division 4 of the Interstate Commerce Commission, despite an examiner's proposed report recommending disapproval of the application. The transaction involves some 304 route-miles, the main part of which extends from Green Bay, Wis., to Dubuque, Iowa. Northland is to pay Wisconsin $260,000 for its rights and certain property, principally buses.

The transaction was questioned because the Great Northern holds 44.69 per cent of Northland's stock, and four of the bus line's nine directors are Great Northern representatives. The division pointed out in its report, however, that it had previously found that Northland is not affiliated with the Great Northern, but is instead controlled by the Greyhound Corporation, which owns 51.21 per cent of Northland's stock and is represented by five directors. No evidence has been presented to warrant any different conclusion, it held, and the transaction was found to be in the public interest, provided that Northland's accounting adjustments conform to the division's requirements.

The division did not hold the ruling in the *Southwestern Greyhound Lines* case (39 M.C.C. 243), reported in *Railway Age* of December 2, 1944, applicable to this transaction. Northland had contended that the Southwestern acquisition there involved was found not in the public interest because the surviving carrier was found to be affiliated with a railroad (the Southern Pacific held 16⅔ per cent of its class A voting stock) and the operations to be acquired were in territory served by the railroad, conditions not present in the Northland case. The division quoted this argument without comment.

Finds Protection for Track Cars Was Inadequate

An Interstate Commerce Commission recommendation that the New York Central (Cleveland, Cincinnati, Chicago & St. Louis) "provide adequate protection for the movement of track motor cars on its line" has resulted from an investigation, under the supervision of Commissioner Patterson, of a collision at Gard, Ill., at 6:10 a. m. on October 2, involving a passenger train and a track motor car. Four employees were killed.

Gard is a station about 61 miles west of Pana, Ill., on the double-track line from that point to St. Louis, Mo., which is also used by trains of the Chicago & Eastern Illinois. Trains moving with the current of traffic are operated by automatic block and train stop systems, while those moving against the current of traffic are operated by train orders and a manual block system. The C. & E. I. passenger train and the Big Four motor car concerned in this collision were moving against the current of traffic on the eastward track.

While there was conflicting testimony, it appeared that the motor car was being operated against the current of traffic without authority, except that it was the practice to permit such operation provided proper protection was furnished under the rules. The train was operating against the current of traffic under a train order issued to expedite the movement of other trains on the westward track, which order was issued after the dispatcher had been advised, he said, that copies of the train line-up had not been delivered to any motor car. All employees on the motor car were killed, but it appeared that they had not received sufficient information to safeguard its movement, while the train crew had no information at all about the movement of the motor car.

Pointing out that manual block protection would have been provided a train moving as the motor car moved, preventing a following passenger train from entering a block occupied by a preceding train, and that the commission in the past 22 months had investigated six accidents in which track motor cars and trains collided because adequate protection was not provided for the motor car movements, the report concluded with the comment that "the practices in effect were not adequate to provide proper protection for the movement of the motor car."

While the speed at which the motor car was moving was not known, the authorized maximum speed was 20 m.p.h. The train was moving about 70 m.p.h. when the engineer observed the car about 100 ft. ahead. His view ahead was materially restricted both by fog and by trailing smoke from a train moving in the same direction on the other track.

I.C.C. Service Orders

Service Order No. 380, issued by the Interstate Commerce Commission November 26 and effective November 27 through December 5, unless otherwise ordered, has prohibited acceptance by railroads of outbound l.c.l. freight at St. Paul, Minn., Minneapolis, or Minnesota Transfer. While such a service order, establishing a general embargo on shipments from specified points, is considered to be unusual practice, it was issued at the request of the Association of American Railroads, it is understood, and supplements A.A.R. Car Service Division embargoes on inbound l.c.l. movements to the same points, which were put out on November 24.

The embargoes were considered to be necessary because of congestion at freight houses in the Twin Cities area resulting from a strike affecting terminal truck lines at those points.

Because the assembling and forwarding of box cars loaded with bauxite ore concentrates from Mobile, Ala., in trainload lots of 1,800 tons or more has resulted in delay in the movement of cars, the commission has directed carriers handling such traffic to move each individual carload forming part of a trainload shipment within one day after the first 7 a. m. after the car is loaded, and to forward all carloads comprising such minimum trainload shipment within three days after the first 7 a. m. after the first car

is loaded. This requirement is set forth in Service Order No. 381, effective November 30 through March 10, 1946, unless otherwise directed.

In order to conserve the supply of clean and disinfected stock cars for the loading of feeder stock, the use of such cars for loading other livestock is restricted by Amendment No. 2 to Service Order No. 71 to situations where the supply of cars of this type exceeds the demand for cars for feeder stock loading. The expiration date of the entire order, which was originally issued March 6, 1942, and which suspended rules allowing railroads to supply stock cars of greater capacity than ordered by shippers, has been fixed in the amendment as December 31.

The expiration date of third revised Service Order No. 180, prescribing increased demurrage charges on refrigerator cars, and of revised Service Order No. 112, limiting destination free time on refrigerator car shipments of fresh or green fruits or vegetables, has been set in each case for March 15, 1946, by amendments Nos. 1 and 4, respectively, both effective November 30.

Would Have I. C. C. Investigate P. R. R. Motor Operations

Investigation by the Interstate Commerce Commission of all motor trucking operations conducted by affiliates of the Pennsylvania has been recommended in Joint Board No. 117's proposed report on seven applications of Pennsylvania Truck Lines, Inc., for certificates of public convenience and necessity authorizing extensions of operations as a common carrier, in substitution of truck for rail service, over 23 routes between points in Ohio, Pennsylvania, and Indiana. Since Pennsylvania and Indiana waived action in the proceedings, the Ohio representative alone (Irvan A. Gorrill) made the proposed report, the title case being No. MC-19201 (Sub-No. 34).

The recommended investigation would be "with a view to requiring simplification and prescribing uniform and correlated restrictions." Meanwhile, the joint board would deny most of the new certificates sought, granting those for only seven routes where it would impose the usual conditions designed to insure that the trucking operations would remain auxiliary to P. R. R. rail service.

In recommending the investigation the report recalled that the commission took similar action in at least one other instance when it reopened No. MC-50544 to reexamine the operations of the Texas & Pacific Motor Transport Company, subsidiary of the Texas & Pacific.

"The Pennsylvania," the report went on, "has a number of wholly owned subsidiaries holding duplicate rights. If an investigation is made, the joint board believes it should cover all of the wholly owned or controlled subsidiaries of the Pennsylvania. Specifically, it is suggested that the following questions, among others, be determined: (1) What, if any, changes or modifications should be made in the conditions contained in the outstanding certificates; (2) whether the Pennsylvania should be required to reduce in number its wholly owned motor carrier subsidiaries; (3) whether applicant, or any other of the Pennsylvania's wholly owned subsidiaries, may render public service [service other than substituted freight service for the railroad], and if so, to what extent; and (4) whether such subsidiaries may hold duplicate operating rights."

Mr. Gorrill's adverse recommendations with respect to most of the additional routes sought by P. T. L. were based on a finding to the effect that the applicant failed to establish that the resulting improvement in P. R. R. rail service would outweigh possible injuries to independent truckers, 37 of whom appeared as protestants. The discussion leading up to this finding pointed out that the substituted service proposed and the substituted service now rendered by P. T. L. is not restricted to the joint motor-rail type, "except in some few instances not here pertinent." Thus P. T. L. "will, if the authority sought is granted, and does now, render substituted service for the Pennsylvania on traffic which moves wholly" by motor vehicle.

"Accordingly," the report continued, "it is apparent that the granting of this authority would enable the Pennsylvania, through the use of the proposed substituted service, to compete more effectively with the existing motor carriers in the short-haul transportation of traffic. . . . This competition in the short-haul field would not be one of rail service vs. motor service as at present, but would be motor service vs. motor service. Moreover, the Pennsylvania would be in a position to offer, if the authority were granted applicant, all-motor service at rail rates, which now are lower than motor rates, and, what is more important to any number of shippers, under its responsibility for the entire transportation."

The report next suggested that the foregoing might prompt a question as to why the authority sought should not be granted subject to the so-called prior-or-subsequent-rail-haul restriction which would confine the truck operations to traffic which had a prior or subsequent haul by rail. Mr. Gorrill replied that neither the applicant nor the P. R. R. would accept such a restriction voluntarily; and he knew of no case wherein the commission had imposed such a condition in instances like the present one. Moreover, he added, P. T. L.'s present certificates generally do not contain such a restriction. On the question of whether or not P. T. L.'s present substituted service has adversely affected independent truckers, the report asserts that the authority now held "has not been used to the fullest extent possible."

Various other findings were also made by Mr. Gorrill, who thus met the parties' request that he make a determination with respect to each issue raised regardless of whether or not some particular finding was necessary in view of the ultimate findings made. This assorted group of findings included a conclusion that P. T. L. was the proper applicant and that it was not necessary for P. R. R. to join in the application; a recommendation that the so-called "key point" restriction, under which truck service in substitution for rail service is prohibited between specified key points, be interpreted to make any named key point a limitation upon all authority held by a carrier, whether granted in the proceeding in which the key point is named or in any other proceeding; a conclusion that the restriction of truck service to "points which are stations on the Pennsylvania" does not confine the truck's calls to station buildings, but permits storedoor service in communities where the stations are located; and an expression of the joint board's opinion that, "subject to all applicable restrictions on their operating authority at the point of interchange," P. T. L. and the Willett Company of Indiana, another P. R. R. subsidiary, may interchange traffic with each other "in the performance of service which is auxiliary to, or supplemental of, the Pennsylvania's rail service."

I. C. C. Seeking More Funds from Congress

(*Continued from page 911*)

Wage Cases Getting Harder—Predicting that this condition will continue at least for several months, he added that there are on the horizon several large movements to increase railroad wages. "Our experience in handling these national cases in the past has been that they nearly all reach an emergency board. They are very difficult to settle. They just do not settle them in direct negotiations. They are difficult to settle in mediation. The majority of them reach the stage of an emergency board."

One large request for a deficiency appropriation which was included in the Budget estimate but omitted in the committee recommendations was $128,475,000 for rivers and harbors and flood control projects. This omission, however, was "without prejudice," the committee pointed out in its report, as it was of the opinion that the entire program should be submitted in January, 1946, to the subcommittee dealing with the War Department civil functions appropriation, in order that more careful consideration may be given the "merits of features not essential to protection against floods." The committee felt "a number of the undertakings should have further investigation, particularly those which contemplate commencing construction of so-called multipurpose dams entailing ultimate separate costs of as much as $130,000,000."

Senate Passes Bill to Tax Equipment in D. C.

The Senate on November 23 passed without debate the bill (S. 1278) sponsored by Senator Bilbo, Democrat of Mississippi, to provide for the taxation of rolling stock of railroads and other companies operated in the District of Columbia.

International's Buses Denied Exemption from Motor Act

For the third time, the Interstate Commerce Commission has denied the application of the International Railway Company of Buffalo, N. Y., for a certificate exempting its bus operations in interstate and foreign commerce from federal regulation. The exemption was sought under provisions of the Interstate Commerce Act's section 204(a)(4a) which are designed to relieve motor carriers on intrastate routes whose interstate operations are of minor importance and have no substantial effect on interstate transportation performed by others. The present report by the full commission follows and affirms two previous reports by Division 5.

Four commissioners dissented, separate

expressions of disagreement coming from three of them—Commissioners Lee, Splawn, and Alldredge. Commissioner Mahaffie's agreement with the latter is noted. The proceeding was docketed as No. MC-28659 (Sub-No. 1-Ex).

Truman Will Reappoint Lee and Patterson to I. C. C.

President Truman announced at his November 29 press conference that he will reappoint Interstate Commerce Commissioners William E. Lee and William J. Patterson for new terms ending December 31, 1952. Their present terms expire at the end of this year.

A former chief justice of the Idaho supreme court, Mr. Lee has been a member of the Commission since January, 1930. Mr. Patterson is completing his first term, having been appointed in 1939, after several years of service with the Commission's Bureau of Safety, of which he was director from 1934 until 1939.

Materials and Prices

The following is a digest of orders and notices that have been issued by the Civilian Production Administration, the Surplus Property Administration and the Office of Price Administration, since November 20, and which are of interest to railways:

Lumber—To increase the production of lumber, a key item in the postwar expansion of construction, the C. P. A. has extended special priorities assistance to producers of lumber and logs.

Direction 5 to PR 28, classifies lumber as a critical product, pointing out that supplies are "substantially less than present and anticipated requirements and this shortage is so serious as to threaten the required expansion in construction." This represents "a serious threat to the economy of the country during the reconversion period," the direction said.

The action entitles lumber to receive particular emphasis in assignment of CC ratings under Paragraph (d) (1) (iii) of PR 28. These ratings may be given to log and lumber producers to replace machinery and equipment which is in imminent danger of breakdown or to obtain construction materials and new capital equipment that will result in a substantial increase in production, except in areas where existing facilities are sufficient to handle available timber. The ratings also may be given for maintenance, repair and operating supplies when the producer demonstrates that he is unable to obtain the needed items without priorities assistance.

Other construction materials which have been given similar assistance are clay building products and cast iron soil pipe.

Prices

Electrical Fibre Conduit—An increase of 11.5 per cent in manufacturers' maximum net prices for electrical fibre conduit and fibre pipe has been provided by Amendment 16 to Order No. 1 under Section 25 of MPR 592—effective November 21. The dollar-and-cent amount may be passed on to buyers by all resellers.

Residual Fuel Oils—Wholesale ceiling prices for heavy residual fuel oils at principal Atlantic coast ports were reduced one to five cents a barrel, effective November 28, because of a recent reduction in tanker transportation rates from the Texas gulf coast.

The ceilings reduced are those on sales in wholesale quantities by refiners and terminal operators to industrial users. The ports where the reductions occur are Portland, Me.; Portsmouth, N. H.; Boston and Fall River, Mass.; Providence and Tiverton, R. I.; New Haven, Conn.; Albany and New York, N. Y.; Philadelphia, Pa.; Baltimore, Md.; Norfolk, Va.; Wilmington, Del.; Charleston, S. C.; Savannah, Ga.; Jacksonville, Fla.

At the same time, specific ceiling prices at all levels of distribution have been established on petroleum fractions sold for use as pressure appliance fuel in California, Arizona, Nevada, Oregon and Washington. The ceilings are based on the principal marketer's (reference seller) price for 73 octane aviation gasoline. The general level of prices heretofore in effect will not be changed.

Admonition on Coast-to-Coast Trains

"Ever since that historic day in 1869 when, at Promontory, the Pacific Railroad, as the joint operations of the Central Pacific and Union Pacific were then known, came into being, the matter of through transcontinental train service has been a skeleton in the closet of American railroading. Often discussed in private but never aired in public, the subject of passenger service on regular schedule from the Atlantic seaboard to the Pacific states was too hot for the public even to be allowed to think about it. For seventy-five years, therefore, the traveling public has been the victim of a conspiracy to make it pay toll on its person and ransom on its convenience largely in Chicago but in a somewhat less flagrant manner in St. Louis and New Orleans.

"There never has been and is not now any slightest valid reason why railroad patrons should be forced to stop over in Chicago for so much as five minutes, and the railroad schedules now in effect, generally speaking, require them there a matter of several hours, depending on the trains of their selection in either direction.

"Now, at least, the outer shell of this conspiracy, engineered by tradesmen, hotel keepers and transport interests in Chicago and tacitly abetted by the roads themselves, has been cracked. Two venturesome and, it may be said, forward-looking railroads, the Chesapeake & Ohio and the New York, Chicago & St. Louis (Nickel Plate) have advertised their willingness to cooperate with any Western railroads or combination of them to establish through-car service from the Atlantic to the Pacific and thus make it unnecessary for passengers, if they are so inclined, to leave their staterooms between, say, New York and San Francisco. Chicago would not even be a water stop in the passenger's progress, since the Western terminals of these lines are at Cincinnati and St. Louis, respectively, and through-car Pullmans would be more nearly in a position to compete with plane service on one more count.

The merits of the proposal are apparent from every aspect. Its negative appeal would be the abolition of a long-standing and singularly bare-faced travel racket; the positive one would be a great inducement to the patronage of long-distance travel. On either count it is worthy of the cooperation of the Western railroads to their fullest measure of capacity.—

—From the N. Y. Herald-Tribune.

Supply Trade

Alfred B. Egan, manager of the Chicago district of the **Sheffield Steel Corporation** at Chicago, has been promoted to manager of sales of the Reinforcing Products division, with headquarters at Kansas City, Mo.

R. M. Shaver, assistant engineer of freight cars of the **Pullman-Standard Car Manufacturing Company,** has been promoted to mechanical engineer of freight cars, with headquarters as before at Michigan City, Ind.

William M. Roche, who has been on leave of absence from the **General American Transportation Corporation,** Chicago, to serve as a lieutenant-colonel with the Army Transportation Corps, has returned to his former position of special representative in the sales department of General American.

Raymond Koontz, vice-president of **Maguire Industries, Inc.,** has been appointed general manager of the company's operating divisions. Mr. Koontz previously was in charge of the ordnance and electronics operations of the company. He has been connected with the Maguire organization since 1936.

Bert J. Aamodt has been promoted to manager of industrial sales for the Chicago and Melrose Park, Ill., works of the **National Malleable & Steel Castings Co.** After attending Marquette University and the University of Wisconsin, Mr. Aamodt was associated with several foundry companies in Milwaukee, Wisc., from 1917 to 1932. He joined National Malleable's Chicago works as steel foundry superintendent in 1932, and later was appointed general superintendent. He was appointed manager of industrial steel sales for the Chicago and Melrose Park works in 1943. **Roy C. Hobson,** specialty development engineer at the company's Sharon, Pa., works, has been transferred to Chicago as assistant manager of industrial sales.

George L. Green has been appointed vice-president of the **H. K. Porter Company,** Pittsburgh, Pa., and subsidiaries. As vice-president of the Mount Vernon Car Manufacturing division, Mr. Green has been in charge of freight car sales. He will supervise also all sales of Porter, Devine and Quimby products in the Chicago district.

The **International Nickel Company** has opened the Cincinnati, Ohio, technical section of its development and research division. **Richard B. Kropf,** metallurgist and former district manager of the Copperweld Steel Company at Hartford, Conn., has been appointed in charge of the new section which will cover southwestern Ohio, the southern half of Indiana, and Kentucky.

The Seattle, Wash., branch of **Fairbanks, Morse & Co.** has announced that the **Milwaukee Machinery Company,** of Portland, Ore., has been appointed exclusive distributor for the complete line of Fairbanks, Morse turbine pumps and also will

handle service and sales for the Niagara propeller, the mixflow pumps and the Westco horizontal turbine-type pumps. Their pump department will be headed by **W. H. Perry,** who was with the Dallas, Texas, branch of Fairbanks, Morse & Co. for many years and more recently with the Westco Pump Sales Company in California. The Seattle branch also announced that the **Cascade Machinery Company** of Seattle will handle all Fairbanks, Morse pumping equipment and also act as distributors for Fairbanks, Morse motors and electrical equipment. The pump department of Cascade Machinery will be managed by **Clyde A. Retter** who was recently employed at the Seattle branch of Fairbanks, Morse and for many years before that as district manager for the Pomona Pump Company before it was purchased by Fairbanks, Morse.

V. G. Scott, production manager of the **Wood Shovel & Tool Co.,** at Piqua, Ohio, has been promoted to manager of sales, with the same headquarters, succeeding **N. T. Jacobs,** who died recently. Mr. Scott has spent his entire career in the shovel industry, beginning with the Pittsburg Shovel Company's sales department.

V. G. Scott

Later he resigned to join the sales staff of the Ames Baldwin Wyoming Company, with headquarters at Parkersburg, W. Va., and after serving with that firm for ten years he went with the Wood Shovel & Tool Co., as assistant manager of sales in January, 1942. In December, 1944, Mr. Scott was advanced to the position he held at the time of his new appointment.

OBITUARY

Bruce V. Perne Crandall, formerly publisher of the "Railway Review," which was purchased by the Simmons-Boardman Publishing Corporation and merged with *Railway Age* in 1926, died on November 19 at Silver Spring, Md., at the age of 72. Mr. Crandall was a student at Western Reserve University in 1891-92. He began his business career as an office boy with Franklin MacVeagh & Co., Chicago, in 1892. He was employed with the "Railway Review" from 1896 to 1900 and the "Railway Master Mechanic" from 1900 to 1908. He was president of the Bruce V. Crandall Service, Inc., from 1908 to 1922. Subsequently he was editor of "Iron Trail," 1921-22; editor of the Northwestern Railway System Magazine, 1922-24; and owner and editor of the "Railway Review," 1924-26. Following his partial retirement in 1926 he continued to interest himself in many enterprises and was associate editor, South Coast News, Laguna Beach, Cal., in 1930-31; chairman of the Greater Orange County Committee (Cal.) in 1931; and editor of the Venice-Nokomis News, Venice, Fla., in 1938-39.

Mr. Crandall was secretary-treasurer of the Western Railway Club, 1920-27; secretary of the Veterans' Association of the Chicago & North Western 1924-27; and at the time of his death, president of the Descendents of First Families of America and secretary of the Crandall, Mount, and Nichols societies. He was the author of Autocrat at the Lunch Table, 1915; Carman's Helper, 1917; Locomotive Terminal Cost Data, 1918; Track Labor Cost Data, 1919; After Forty Years, 1925; Railroading On the Rails and Off, 1927; Reveries of an editor, 1932; and Is This the Armageddon?, in 1942.

Equipment and Supplies

Directors of the NORTHERN PACIFIC have authorized the purchase of 24 sleeping cars, 12 baggage and mail cars, six dining cars, and six 4,500-hp. Diesel locomotives.

LOCOMOTIVES

According to the November 17 Foreign Commerce Weekly, issued by the U. S. Department of Commerce, the Administrative Council of the NATIONAL RAILROADS OF COLOMBIA has announced that a commission being sent to the United States to purchase more modern equipment for the Colombian railroads will be interested particularly in Diesel engines for passenger trains. The council also has under consideration a plan for the electrification of the most important Colombian railroads.

The MISSOURI-KANSAS-TEXAS has placed an order with the Electro-Motive division of the General Motors Corporation for six 1,000-hp. Diesel-electric switchers to cost approximately $500,000 each. The locomotives will be delivered early next year for service in the road's Dallas (Tex.) yards.

The READING has authorized the construction of ten additional freight locomotives of the 4-8-4 T1 class at a cost of $1,658,000. Twenty similar locomotives are under construction at the company's shops in Reading, Pa. The new engines are intended for freight service, being equipped with 70-in. diameter driving wheels, and are capable of operating at a speed of 65 miles per hour. The railroad also authorized the building of 100 additional 70-ton covered bulk cement hopper cars at a cost of $374,000.

The WESTERN MARYLAND is sending out inquiries to the locomotive builders asking for quotations on the proposed purchase of ten 4-8-4 type steam freight locomotives.

FREIGHT CARS

The CANADIAN PACIFIC has ordered 1,000 40½-ft. steel sheathed box cars, allocating 950 to the Canadian Car & Foundry Co., Montreal, Que., and 50 to the Eastern Car Company, New Glasgow, N. S. The new box cars will embody structural features calculated to reduce dead weight and contribtue to greater load capacity. The doors will be of light-weight corrugated steel and the ceilings of plywood. Deliveries are expected about the middle of next year. The railroad also ordered 50 29½-ft. air-operated dump cars of 70 tons' capacity, for maintenance work on its lines; 250 40-ft., 50-ton refrigerator cars and 500 50-ton automobile cars from the National Steel Car Corporation, Hamilton, Ont.

The CANADIAN EXPORT BOARD has ordered 2,100 26-ft. 3-in. gondola cars of 25 tons' capacity from the National Steel Car Corporation.

The CLINCHFIELD has ordered 20 29-ft. 3-in. covered hopper cars of 70 tons' capacity for February, 1946, delivery from the American Car & Foundry Co.

The MINNEAPOLIS & ST. LOUIS has ordered 50 29-ft. 3-in. covered hopper cars of 70 tons' capacity for early 1946 delivery from the Pullman-Standard Car Manufacturing Company.

The MONTOUR has ordered 200 50-ton hopper cars for February, 1946, delivery from the Pullman-Standard Car Manufacturing Company.

The NORFOLK & WESTERN has ordered 100 28-ft. covered hopper cars of 70 tons' capacity from the railroad's own shops at Roanoke, Va. Deliveries are expected in April and May, 1946.

The TEMISKAMING & NORTHERN ONTARIO RAILWAY COMMISSION has ordered 600 40½-ft. box cars of 50 tons' capacity and 75 40-ft. 8-in. hopper cars of 70 tons' capacity from the National Steel Car Corporation.

The WHEELING & LAKE ERIE has ordered six 29-ft. 3-in. steel covered hopper cars of 70 tons' capacity for 1946 delivery from the General American Transportation Corporation.

PASSENGER CARS

The CANADIAN NATIONAL has ordered ten baggage cars and five mail-express cars from the National Steel Car Corporation.

The UNION PACIFIC has asked bids on 100 new passenger cars as part of a program of expansion which will include the purchase of equipment totaling $24,000,000.

SIGNALING

The DULUTH, MISSABE & IRON RANGE has placed an order with the Union Switch & Signal Co. for materials to install an all-relay direct-wire electric interlocking at Coleraine Junction, Minn., involving a Style B-30 control panel. Style H-2 searchlight signals, Style M22-B low-voltage dual-controlled electric switch movements, relays, rectifiers, transformers and housings. Railway forces will perform the construction work necessary in connection with this installation.

Construction

CLINCHFIELD.—The Carolina, Clinchfield & Ohio and the proprietary companies, the Atlantic Coast Line and Louisville & Nashville, have applied to the Interstate Commerce Commission for authority to build a 10.2-mile branch from Fremont, Va., to the undeveloped coal mining area on Lick Fork which Division 4 of the commission already has authorized it to enter, as reported in *Railway Age* of September 15, page 453. The present application supplements an earlier one for authority to build a 14.5-mile extension. The Clinchfield's extension into this field has been under consideration at intervals over a long period of time.

DENVER & RIO GRANDE WESTERN.—This road is undertaking an improvement program on its entire system which will cost in excess of $3,000,000.

It includes the following projects, some of which are nearing completion while others have not as yet been started: Construction of a brick station at Thistle, Utah, $33,700; four-unit apartment house for employees at Bond, Colo., $29,000; emergency hospital at Salt Lake City, Utah; two three-story yardmaster towers at Roper, Utah, $21,000; yard office at Pueblo, Colo., $30,000; shop and garage at Salt Lake City, $139,000; yard office and utility building at Grand Junction, Colo. $42,370; addition to depot at Monte Vista, Colo., $45,873; industrial warehouse at South Denver, Colo., $85,300; depot at Minturn, Colo., $23,810; installation of slag ballast between Midvale, Utah, and Salt Lake City, $106,845; installation of gravel ballast on the Park City branch, $22,000; new rail program, $1,612,594; S. H. rail program, $248,000; bridge and culvert program, $208,000; construction of new facilities at South Denver, $79,000; construction of track facilities for a coal mine on the Loma branch near Walsenburg, Colo., $43,000; miscellaneous line changes between Minturn and Helper, Utah, $103,000; replacement of iron wires with copper wires between Grand Junction and Salt Lake City, $75,600, and between Alamosa, Utah, and Pueblo, $34,000; replacement of depot, eating house and dormitory at Bond, $60,000; improvement of steaming lines at Salt Lake City, $25,000; construction of a 400,000-ton ice house and facilities at Provo, Utah, $60,000; remodeling and enlarging of depot at Monte Vista, $51,000; installation of facilities for one-stop servicing of locomotives at Bond, $34,000; construction of an extension to the testing laboratory at Burnham, Colo., $31,400; construction of concrete walks and runways in the car repair yard at Burnham, $29,600, and improvement of steam distribution lines in yard at Pueblo.

MISSOURI PACIFIC. — This road has awarded a contract, amounting to $40,000, to H. B. Deal & Co., Inc., St. Louis, Mo., for the construction of a one-story addition to a wheel house in that city. Another contract, amounting to $100,000, has been awarded to the Schneider Construction Company, Houston, Tex., for the construction of a vegetable and citrus plant at Weslaco, Tex.

Financial

ARCATA & MAD RIVER.—*Deficit Status.*—On this road's petition, the Interstate Commerce Commission has agreed to hear oral argument, at a time to be set later, for the purpose of reconsidering the findings of Division 4 that it is not entitled to compensation for losses claimed as a result of federal control of railroads in the World War I period. (Previous item in *Railway Age* of August 11, page 270.)

BUFFALO CREEK.—*Bonds.*—Division 4 of the Interstate Commerce Commission has authorized this company to issue $2,850,000 of series B 3 per cent first mortgage bonds, due in 1995, the proceeds of which, with other funds, are to be used to redeem at 105 its entire outstanding indebtedness, consisting of $2,881,000 of series A 3¾ per cent first mortgage bonds due in 1965. The new issue has been sold at 99.511 to Wood, Struthers & Company, agent. The Lehigh Valley and the Erie, joint owners of the Buffalo Creek and lessees of its property, have been authorized to guarantee the new issue jointly and severally. The operation is expected to result in a $109,221 aggregate reduction in charges.

CHICAGO, BURLINGTON & QUINCY.—*Refunding.*—Division 4 of the Interstate Commerce Commission has authorized this company to issue $65,000,000 of 3⅛ per cent first and refunding mortgage bonds, due in 1985, which have been sold at 100.0399 to Morgan, Stanley & Company and others. The proceeds, with other funds, are to be used to redeem $39,493,000 of 3¾ per cent first and refunding mortgage bonds due in 1974, which are callable at 103⅝, and $30,000,000 of 3½ per cent collateral trust bonds, which are callable at 105. In addition to a federal tax reduction of $3,101,937, the company expects the transaction to effect a net interest reduction of $9,339,416. Annual interest charges on the debt to be outstanding on completion of this refunding will be 33.1 per cent less than on the road's debt at the end of 1940.

As a means of further reducing its charges, the Burlington has filed an application with the commission for authority to issue up to $50,000,000 of first and refunding bonds due in 1970, the interest rate on which is not to exceed 3⅛ per cent, as a means of securing funds with which to purchase on invitation for tenders of 4 per cent general mortgage bonds of 1958 at 120 and of 4½ per cent first and refunding mortgage bonds of 1977 at 123.

DELAWARE, LACKAWANNA & WESTERN.—*Merger of Warren.*—Division 4 of the Interstate Commerce Commission has approved the merger of the properties of the Warren Railroad into the Delaware, Lackawanna & Western, which has operated it under lease since 1857. The surviving company has been authorized to assume liability for $1,394,000 of the lessor's first refunding gold mortgage 3½ per cent bonds, due in 2000, and to issue $1,613,900 of Warren division mortgage bonds, due in 1992, to bear 4 per cent annual fixed interest plus an additional 2 per cent payable contingently. This merger is another of a series whereby the Lackawanna has been simplifying its system capital structure, increasing its ownership of operated trackage, reducing its annual fixed or potential charges, and clarifying its position with respect to federal income taxes and New Jersey property taxes in litigation. Annual rentals paid the Warren included $48,790 to meet its bond interest and $112,973, or 7 per cent, on its capital stock held by the public.

DELAWARE, LACKAWANNA & WESTERN.—*Approves Mergers.*—The D. L. & W. stockholders have approved agreements providing for the merger of eight leased lines. The lines involved are the Warren; the Syracuse, Binghamton & New York; the Erie & Central New York; the Chester; the Passaic & Delaware; the New York, Lackawanna & Western (of Pennsylvania); the Newark & Bloomfield; and the Sussex. The proposed issuance of $1,613,000 of the D. L. & W.'s Warren division mortgage bonds, required to effectuate the Warren unification, also was approved.

William White, president, said the leased lines probably would be taken over before the year-end and will mark the completion of the company's merger program, excepting for three small pieces of railroad—the Greene Railroad, the Morris & Essex Extension and the Passaic & Delaware Extension. The D. L. & W. owns two-thirds of the capital stock of the Greene, 49.6 per cent of the Morris & Essex Extension and 9½ per cent of the Passaic & Delaware Extension and has been unable to acquire the remaining outstanding shares of these lines. As a result of the mergers, the D. L. & W.'s fixed charges will be reduced by about $1,150,000 annually.

Mr. White indicated that the company will report a net loss this year of between $2.5 million and $3 million, due to the payment of about $3,350,000 in tax arrears to the state of New Jersey and because the road in December will amortize the remaining amount of its emergency facilities acquired for war purposes.

ERIE.—*Acquisition.*—Division 4 of the Interstate Commerce Commission has approved this company's purchase of a line from Ravenna, Ohio, to a point near Brady Lake, 2.5 miles, owned by the Cleveland & Pittsburgh, a wholly-owned subsidiary of the Pennsylvania, and operated by the Erie under lease as a second main track. The price to be paid is $40,000.

GREAT NORTHERN.—*New Director Elected.*—John P. Weyerhaeuser, Jr., executive vice-president of the Weyerhaeuser Timber Company, has been elected a director of the Great Northern to fill the unexpired term of the late F. E. Weyerhaeuser.

KANSAS CITY SOUTHERN.—*Refunding.*—Division 4 of the Interstate Commerce Commission, consisting for this case of Commissioners Lee, Mahaffie and Miller, has authorized this company to issue $40,000,000 of series A 30-year first mortgage 4 per cent bonds and $6,000,000 of unsecured promissory notes, the proceeds of which are to be applied to the redemption of $26,950,000 of first mortgage 3 per cent bonds due in 1950 (for which 107 would be of-

fered, the issue being non-callable), $6,944,000 of Texarkana & Fort Smith series A first mortgage 5½ per cent bonds, callable at 107½, $1,114,000 of secured serial 3 per cent notes, callable at par, and $7,700,000 of 2½ per cent promissory notes, on which maturity would be anticipated. In addition, the road's treasury will be reimbursed for its recent redemption of $3,000,000 of Kansas City & Grandview first mortgage 4½ per cent bonds.

As noted in *Railway Age* of November 10, page 767, Examiner W. P. Starr in a proposed report had recommended that the commission deny this application, even though the objectives of the transaction were held to be desirable, on the ground that it would entail a net cost of about $3,143,000 and that only one bid was received for each of the new issues. The division pointed out in its report, however, that the stated estimate of cost did not allow for immediate tax savings, which are expected to be about $2,770,298, nor for additional tax savings in 1946.

In reaching a conclusion different from the examiner's, the division observed that the company's former refunding and improvement mortgage has been discharged, and that its first mortgage has no provisions for sinking funds or anticipation of maturities. The new mortgage, on the other hand, will provide for future financing and for sinking fund operations, and will have suitable call provisions. While entailing "somewhat higher interest charges than those payable on the securities now outstanding," it will effect material interest savings over those payable when the road instituted the refunding program by which it has accomplished a reduction in mortgage debt, since the end of 1939, from $66,843,000 to $46,285,000, including the issue now authorized. Moreover, said the division, "it will replace the archaic mortgages now and heretofore in force with a single modern mortgage, and will defer for 25 years the maturity of all the applicant's debt except equipment obligations and the $6,000,000 of notes which are to be payable serially over a period of 10 years, with probable earlier retirements through operation of the sinking fund. The directors and management have substantial financial interests in the applicant, and in their judgment the issue of securities as proposed is acceptable and desirable."

The new bonds were sold by competitive bidding to Kuhn, Loeb & Company and others, the only bidder, at 98¼. The new notes were sold to the New York Trust Company, likewise the only bidder, at par with a 2⅜ per cent annual interest rate. In approving the sale of the new issues on these bids, the division questioned the propriety of having the firm which acted as financial adviser to the company in preparing the refinancing plan (Kuhn, Loeb & Company) also heading a group to bid for the bonds. "Such financial adviser," it said, "would be in possession of all pertinent facts long before the public invitations for bids were made known and would be in a position to organize in advance a syndicate which might militate against the formation of syndicates by other firms." The division's approval of the sale of the new securities was given, therefore, on condition that the amount to be paid Kuhn, Loeb for services as adviser is to be subject to the division's further consideration.

In granting authority to issue the new securities, the division also authorized the company to pledge under the new mortgage its Louisiana & Arkansas stock, that is, 60,000 shares of cumulative prior preferred, 40,000 shares of preferred, and 160,000 shares of common.

MAINE CENTRAL. — *Refunding.* — This company has applied to the Interstate Commerce Commission for authority to sell $1,000,000 of Portland & Ogdensburg 4½ per cent first mortgage bonds, now held in its treasury. The proceeds and other funds would be applied to the retirement at 102 of $1,535,600 of Maine Central-Portland & Rumford Falls 6 per cent collateral trust bonds due in 1959.

MERIDIAN & BIGBEE RIVER.—*Extension of Loan.*—Division 4 of the Interstate Commerce Commission has approved an extension to 1950 of the maturity date of $900,000 of this road's trustee's certificates held by the Reconstruction Finance Corporation as security for a loan to finance construction of an extension to its line, and has authorized the issue to the R. F. C. of $288,654 of non-interest-bearing trustee's certificates to evidence defaulted interest on the certificates it holds, recalculated at 4 per cent.

PENNSYLVANIA.—*Trackage Rights.*—Division 4 of the Interstate Commerce Commission has approved a 10-year extension of arrangements under which this company operates under trackage right on a line of the Wheeling & Lake Erie from Warrenton, Ohio, to Dun Glen, 9.64 miles.

RUTLAND.—*Trustee.*—Albert A. Cree has asked the Interstate Commerce Commission to approve his appointment as trustee of this road.

SOUTHERN.—*New Director.*—On November 27, Robert Winship Woodruff of Atlanta, Ga., president of the Coca-Cola Company, was elected a director of the Southern to fill the unexpired term of the late John K. Ottley.

WESTERN PACIFIC.—*Reorganization Expenses.*—Division 4 of the Interstate Commerce Commission has approved maximum limits of final allowances for services and expenses in connection with this road's reorganization for two firms which were counsel for the reorganization committee. Whitman, Ransom, Coulson & Goetz was allowed $88,806 on claims for $117,791, and Pillsbury, Madison & Sutro was allowed $8,180 on claims for $15,961.

Dividends Declared

Camden & Burlington County.—Semi-annually, 75¢, payable January 2 to holders of record December 15.

Chicago, Burlington & Quincy.—$3.50, payable December 24 to holders of record December 1.

Cincinnati New Orleans & Texas Pacific.—Common (reduced), $3.00, payable December 18 to holders of record December 6; 5% preferred, quarterly, $1.25, payable as follows: March 1 to holders of record February 15, June 1 to holders of record May 15, September 2 to holders of record August 15, and December 2 to holders of record November 15.

Delaware.—Semi-annually, $1.00, payable January 2 to holders of record December 15.

Erie & Pittsburgh.—7% gtd. quarterly, 87½¢. —Pennsylvania State tax of 7½¢ must be deducted—payable December 10 to holders of record November 30.

Kansas Oklahoma & Gulf.—6% preferred: A and B semi-annually, $3.00, payable December 1 to holders of record November 17; C, irregular, $4.00, payable December 1 to holders of record November 17.

Lykens Valley. — Semi-annually, 40¢, payable January 2 to holders of record December 15.

Northern Central.—$2.00, payable January 15 to holders of record December 31.

Philadelphia, Germantown & Norristown.—$1.50, payable December 4 to holders of record November 20.

Pittsburg, Fort Wayne & Chicago.—Common, quarterly, $1.75, payable January 2 to holders of record December 10, and 7% preferred, $1.75, payable January 8 to holders of record December 10.

Union Pacific.—Quarterly, $1.50, payable January 2 to holders of record December 1.

West Jersey & Seashore.—Common, semi-annually, $1.50, payable January 2 to holders of record December 15, and 6% special guaranteed, semi-annually, $1.50, payable December 1 to holders of record November 15.

Western New York & Pennsylvania.—Common, semi-annually, $1.50, and 5% preferred, semi-annually, both payable January 2 to holders of record December 31.

Average Prices Stocks and Bonds

	Nov. 27	Last week	Last year
Average prices of 20 representative railway stocks	62.70	63.10	43.17
Average prices of 20 representative railway bonds	91.43	100.01	99.93

Abandonments

NASHVILLE, CHATTANOOGA & ST. LOUIS.—Division 4 of the Interstate Commerce Commission has authorized this company to abandon a portion of a branch from Lewisburg, Tenn., to Columbia, 18.26 miles, subject to the provisions for the protection of any employees adversely affected which were prescribed in the Burlington case, 257 I. C. C. 700. Despite opposition of local interests and the Railroad and Public Utilities Commission of Tennessee, the division held that, under the circumstances, no showing of public need for the line had been made. Commissioner Porter did not participate in the disposition of the case.

INTERNATIONAL-GREAT NORTHERN.—Division 4 of the Interstate Commerce Commission has extended for an additional 2-year period its reservation of jurisdiction for the protection of employees who may be affected by this road's line abandonment authorized in the Finance Docket No. 14080 proceedings.

LOUISVILLE & NASHVILLE.—This road has applied to the Interstate Commerce Commission for authority to abandon its Thomas Creek branch extending from Beltona, Ala., to Zola, 5.6 miles; and the 1.7-mile section of its Warrior branch between Zola and a point near Warrior.

PITTSBURGH & LAKE ERIE.—Division 4 of the Interstate Commerce Commission has authorized this company and the Youghiogheny Northern and Pittsburgh, McKeesport & Youghiogheny, the properties of which it operates under lease, to abandon operation of a line from Broad Ford, Pa., to submit Transfer, 2 miles, and at the same time has authorized the Northern, which owns the property, to abandon the line.

UNION PACIFIC.—This company has applied to the Interstate Commerce Commission for authority to abandon a branch from Ripple, Colo., to Orcutt, 2.35 miles.

SEABOARD AIR LINE.—Division 4 of the Interstate Commerce Commission has authorized the abandonment by this road of a portion of a branch from Alcoma, Fla., to Hesperides, 1.3 miles.

Railway Officers

EXECUTIVE

F. F. Riefel, whose appointment as vice-president of the New York Central at Cleveland, Ohio, was announced in the November 24 issue of *Railway Age,* entered

F. F. Riefel

railroading in 1892 as an office boy for the New York Central at Buffalo, N. Y., and served successively until 1912 as telegraph operator, train dispatcher, chief dispatcher, assistant trainmaster, trainmaster, and assistant superintendent. In 1912, he became superintendent of telegraph at Cleveland; in 1915, superintendent of the Detroit division at Detroit, Mich., and, in 1926, general superintendent at Chicago. Mr. Riefel was advanced to assistant vice-president at Chicago in 1937. He was named assistant vice-president and general manager, Lines West of Buffalo and Ohio Central Lines, at Cleveland, in 1940, and maintained this position until the time of his recent promotion.

J. W. Pfau, whose appointment as assistant to vice-president, improvements and development, of the New York Central at New York was announced in the November

J. W. Pfau

24 issue of *Railway Age,* was born in Troy, N. Y., on September 18, 1876. Mr. Pfau began his railway career in 1899 as a chainman for the New York Central, and subsequently served in various posts in the engineering department until 1904, when he became masonry expert for the State of New York. He returned to the New York Central in 1906 and has served continuously in the engineering department since that time. In June, 1933, Mr. Pfau was appointed acting chief engineer and, in September, 1933, chief engineer, lines Buffalo and East, with headquarters at New York.

R. Wright Armstrong, whose appointment to executive assistant of the Ft. Worth & Denver City, with headquarters at Houston, Tex., was announced in the *Railway Age* of October 27, was born at Brownwood, Tex., on December 18, 1892, and received his higher education at the Missouri Military Academy. He entered railroad service on June 1, 1924, as general agent with the Trinity & Brazos Valley at Ft. Worth, Tex. From 1928 to 1934 he served in the same capacity with the Burlington-Rock Island, also at Ft. Worth. In 1934 he became general agent of the Ft. Worth & Denver City at New Orleans, La., and served in this capacity until 1936, when he entered the service of the Chicago, Burlington & Qunicy as general freight agent at Denver, Colo., and in 1939 at St. Louis,

R. Wright Armstrong

Mo. Since 1941 Mr. Armstrong has been serving in the Transportation Corps of the U. S. Army.

S. L. Wright, executive agent of the Texas & Pacific at Dallas, Tex., has been appointed executive general agent, with the same headquarters, a change of title.

Elliott V. Vandercook, chief of the U. S. Railway Mission in Mexico, has resigned to become vice-president and general manager of the Southern Pacific of Mexico, with headquarters at Guadalajara, Jal.

Eugene J. Dean, freight traffic manager of the Erie at New York, has been appointed assistant vice-president traffic there, succeeding **George C. Manning,** who is retiring after 56 years with the Erie.

Mr. Dean was born on March 8, 1896, in Lowell, Mass., and began his railway career in 1920 as chief clerk for the Erie at Boston, Mass. He became commercial agent there in 1922, was advanced to division freight agent at Dayton, Ohio, in 1927, and industrial agent at Chicago in 1928. Mr. Dean returned to Boston in 1929 as New England freight and passenger agent, becoming general New England agent there in 1937. He was named assistant to vice-president, purchases and stores, at Cleveland, Ohio, in 1938, and freight traffic manager there in 1939, in which capacity he was transferred to New York in 1941.

Mr. Manning, who was born on September 3, 1874, in Lockport, N. Y., entered railroading there in 1889 as a clerk in the freight offices of the Erie. He was trans-

Bachrach

Eugene J. Dean

ferred to Tonawanda, N. Y., then returned to Lockport as agent. He served as traveling freight agent at Buffalo, N. Y., and at New York from 1904 until 1909, when he was appointed division freight agent at New York. He was transferred to Elmira, N. Y., then advanced to general agent at Youngstown, Ohio, in 1916, where he became assistant general freight agent in 1918. In 1919, Mr. Manning was appointed general freight agent at Chicago, and, in 1920, general freight and passenger agent at Youngs-

George C. Manning

town. He was promoted to freight traffic manager in New York in 1925 and to assistant vice-president traffic there in 1931.

Amnon I. Derr, whose retirement as vice-president and secretary of the Pittsburgh & West Virginia at Pittsburgh, Pa., was announced in the November 24 issue of *Railway Age,* was born on March 15, 1885, in Cumberland, Md. He entered railway service there in 1908 as stenographer in the

division engineer's office of the Baltimore & Ohio, and was later transferred to the superintendent's office. He then served successively as linesman on the engineering corps, Cumberland-Grafton division, and secretary to general freight agent. In March, 1908, Mr. Derr became secretary to general manager of the Morgantown & Kingwood at Morgantown, W. Va., and in May, 1910, cashier of the Union Utilities Company (later the West Virginia Traction & Electric Co.) in that city. In 1913 he went with the Morgantown & Wheeling as auditor and later was advanced to traffic manager and general manager of this company. In 1924 Mr. Derr became assistant to vice-president of the Pittsburgh & West Virginia at Pittsburgh, then, in 1931, was promoted to assistant to the president. In April of that year he was elected treasurer, and, in May, secretary and treasurer, then, in 1937, comptroller and secretary. He became vice-president and secretary in 1938. During the interim between March, 1931, and October, 1938, Mr. Derr retained the position of assistant to president.

FINANCIAL, LEGAL AND ACCOUNTING

Hallan Huffman, whose promotion to assistant general counsel of the Great Northern with headquarters at St. Paul, Minn., was reported in the *Railway Age* of November 10, received his higher education at the University of Minnesota. He entered railway service on January 1, 1920, as an attorney of the Northern Pacific at Bemidji, Minn., and six years later he resigned to serve with various public utility companies. In 1934 he returned to the Northern Pacific

Hallan Huffman

as an attorney with headquarters at Bemidji, later serving with the Interstate Commerce Commission and the Office of Defense Transportation at Washington, D. C. On March 22, 1942, he was appointed general counsel to the federal manager of property of the Toledo, Peoria & Western, with the same headquarters. One year later Mr. Huffman was transferred to the office of the federal manager of property of the American Railroad Company of Puerto Rico, with headquarters at San Juan, Puerto Rico, and at Washington. On November 1, 1943, he was appointed general attorney of the Great Northern, the position he held at the time of his recent promotion.

J. C. Sladek, chief clerk in the passenger receipts auditing department of the Great Northern at St. Paul, Minn., has been promoted to auditor of passenger receipts, with the same headquarters, succeeding **L. A. Malmgren,** who has retired after more than 50 years of service.

Ira A. Swander, assistant treasurer of the Ft. Dodge, Des Moines & Southern at Boone, Iowa, has been promoted to **auditor** and acting treasurer, succeeding to part of the duties of **F. M. Johnston,** vice-president, auditor, and treasurer, whose recent death is reported elsewhere in these columns. **W. A. Curran** has been appointed acting assistant treasurer, with headquarters as before at Boone, relieving Mr. Swander.

W. E. Kline, assistant real estate and tax commissioner of the Missouri Pacific at St. Louis, Mo., has been promoted to real estate and tax commissioner, with the same headquarters, succeeding **T. M. Corwin,** who has retired after 36 years of service. Mr. Corwin was born at Newberry, S. C., on October 1, 1875, and received his higher education at the University of Kansas. He entered railroad service in 1900 as a clerk in the accounting department of the Atchison, Topeka & Santa Fe, and served in that capacity until 1905, when he was promoted to tax agent of the same railroad. In 1910 Mr. Corwin became tax agent of the Missouri Pacific, serving in that capacity until 1928, when he was promoted to the position he held at the time of his retirement.

Earl F. Requa, assistant western counsel of the Northern Pacific at Seattle, Wash., has been promoted to assistant general counsel, with headquarters at St. Paul, Minn., succeeding **Frederic D. McCarthy,** whose death on September 18 was reported in the *Railway Age* of September 22. **James W. Hodson** has been appointed to assistant western counsel, succeeding Mr. Requa. **Conrad Olson,** commerce counsel at St. Paul, has been promoted to assistant general counsel, with headquarters as before at St. Paul. **G. T. C. Peterson,** chief clerk at St. Paul, has been advanced to assistant to the general counsel, with the same headquarters, succeeding **Frank J. Gehan,** assistant to the general counsel, who has been promoted to general attorney at St. Paul.

OPERATING

F. W. Nicks, assistant division superintendent of the Canadian Pacific at Lethbridge, Alta., has been transferred to the Portage division, with headquarters at Winnipeg, Man.

Edward A. Chittenden, superintendent of the commercial division of Railway Express Agency in the New York metropolitan area, retired on November 30 after 53 years in the express business.

S. W. Crabbe, superintendent of the Bruce division at Toronto, has been advanced to assistant general superintendent of the New Brunswick district, with headquarters at St. John, N. B., replacing **Laurie Ells,** who has retired. **C. E. Towle,** assistant superintendent of the Bruce division at Toronto, has been promoted to superintendent of the same division, succeeding Mr. Crabbe. **J. O. Milks,** traveling engineer on the Schreiber division, has been advanced to assistant division superintendent at Schreiber, Ont., relieving **J. N. Fraine,** who has been transferred to the Bruce division, replacing Mr. Towle. **J. W. Stewart,** assistant superintendent of the Trenton division at Toronto, has been transferred to the Smiths Falls division, with headquarters at Ottawa, Ont., succeeding **J. O. Fortier,** deceased.

Charles A. Hunt, whose appointment as superintendent of stations and transfers, Central region, of the Pennsylvania at Pittsburgh, Pa., was announced in the November 10 issue of *Railway Age,* was born in Sturgeon, Pa., and entered railway service in 1915 as a car record clerk for the Pennsylvania at Pittsburgh. Following several

Charles A. Hunt

promotions he was advanced to supervising agent on the Conemaugh division in 1929. Two years later he was transferred to the Cleveland division. In 1934 he was promoted to supervising agent at Philadelphia, Pa., and returned to Pittsburgh in 1940 as agent at Eleventh street, which post he maintained until the time of his recent advancement.

Francis E. Wootton, whose promotion to superintendent of the Medicine Hat division of the Canadian Pacific, with headquarters at Medicine Hat, Alta., was announced in the *Railway Age* of November 24, was born at Niagara-on-the-Lake, Ont., on January 19, 1885, and received his higher education at Wesley College, Winnipeg, Man., the University of Manitoba, and the University of Saskatchewan. He began his railroad career in the train service department of the Canadian Pacific in July, 1904, subsequently holding various minor positions until 1920, when he was advanced to assistant division superintendent with headquarters at Moose Jaw, Sask., and later at Weyburn. In 1929 Mr. Wootton became trainmaster on construction and six years later he returned to his former position at Weyburn, being transferred to Kenora, Ont., in 1937, and remaining in that location until his recent promotion.

Arthur N. Jewell, superintendent of the Shamokin division of the Reading at Tamaqua, Pa., has been transferred to the Philadelphia division at Philadelphia, Pa.,

News Department continued on next left-hand page

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succeeding **E. F. Keene,** who has been granted a leave of absence due to ill health. **Richard C. Thran,** assistant superintendent of the Philadelphia division, has been promoted to superintendent of the Shamokin division, while **George F. Van Luvanee,** trainmaster at Erie avenue, Philadelphia, succeeds Mr. Thran.

Newton Gibbs, whose appointment as southern departments' representative on the standard practices committee of Railway Express was reported in the November 17 issue of *Railway Age,* was born on August 9, 1874, and has served with Railway Express for 43 years. Mr. Gibbs held the position of agent at several southern cities and general agent at New Orleans, La. He

Newton Gibbs

subsequently became traveling agent and route agent. In October, 1938, he was named general agent at Atlanta, Ga., where he became superintendent of organization in January, 1939. His duties as representative on the standard practices committee will be in addition to those as superintendent of organization.

Charles F. Wiegele, whose promotion to general manager of the New York Central, Lines West of Buffalo, with headquarters at Cleveland, Ohio, was reported in the *Railway Age* of November 24, was born

Charles F. Wiegele

at Carthage, Ohio, on May 17, 1889, and entered railway service on May 18, 1904, as a yard clerk of the New York Central at Ivorydale, Ohio, subsequently serving as engine dispatcher and roundhouse clerk at Sharonville, Ohio. In 1914 he was promoted to assistant trainmaster at Bellefontaine, Ohio, and on July 1, 1923, was advanced to terminal trainmaster, with headquarters at Springfield, Ohio, later serving in that capacity at Toledo, Ohio; Chicago, and Columbus, Ohio. In August, 1935, he was appointed trainmaster on the Big Four at Cincinnati, Ohio. On June 15, 1939, Mr. Wiegele was promoted to assistant to the assistant general manager of the Big Four, with headquarters at Indianapolis, Ind., and one year later he was appointed assistant to the general manager of the Chicago River & Indiana, and the Indiana Harbor Belt, at Chicago. On October 1, 1941, he was promoted to assistant general manager of those roads, and in July, 1943, he was advanced to assistant to the vice-president of the New York Central, Lines West, the position he held at the time of his recent promotion.

F. E. Turner, formerly secretary to the general manager of the Missouri Pacific at Houston, Tex., and recently released from military service, has been promoted to trainmaster, with headquarters at Anchorage, La.

Warren R. White, until recently serving as a lieutenant in the U. S. Navy in charge of materials handling, packaging and carloading at the Philadelphia, Pa., Navy Yard, has been appointed container engineer of the Union Pacific, with headquarters at Omaha, Neb., a newly-created position.

TRAFFIC

George Palma, district passenger agent for the St. Louis-San Francisco at New York, has been promoted to general Eastern passenger agent with headquarters unchanged.

H. Russell O'Hara has been appointed division freight agent of the Delaware, Lackawanna & Western at Syracuse, N. Y., succeeding **G. W. Eggert,** who has retired after 48 years' service.

Raymond W. Traynor, city freight agent of the Great Northern at Chicago since 1936, has been promoted to export and import agent, with the same headquarters.

Harold H. Balk has been appointed general agent of the Delaware, Lackawanna & Western at Toledo, Ohio, succeeding **A. J. Nash,** who has resigned. **Clinton C. Rau** has been appointed general agent at Cincinnati, Ohio.

Henry W. Large, whose promotion to freight traffic manager of the Pennsylvania, with headquarters at Detroit, Mich., was reported in the *Railway Age* of November 24, was born at Philadelphia, Pa., on July 5, 1905, and received his higher education at Princeton University. He entered railway service on December 10, 1928, with the Pennsylvania, holding various clerical positions in the general offices at Philadelphia and Pittsburgh, Pa., until July 1, 1933, when he was promoted to freight representative at Camden, N. J. One year later he was advanced to district freight agent, with headquarters at Washington, D. C. From October 16, 1936, to December 16, 1939, Mr. Large served as division freight agent at Wilmington, Del., and at Cincinnati, Ohio, and on the latter date he was promoted to general coal freight agent at Chicago, being granted a leave of absence to serve with the armed forces on February 14, 1942. He returned to the Pennsylvania on November 16, at which time he was promoted to his new position.

C. H. Faupel, traveling freight agent of the Central of New Jersey, with headquarters at Chicago, has been promoted to general agent at Detroit, Mich., a newly-created position.

H. T. Rickerson, whose appointment as general coal freight agent for the New York Central at Cleveland, Ohio, was announced in the November 3 issue of *Railway Age,* was born in Atlanta, Ga., on April 16, 1894. Entering railroad service in 1910 with the Frisco, he was subsequently employed by the Illinois Central, the Southern, and the Tennessee Coal, Iron & Railroad Co., consecutively. Mr. Rickerson served in the United States Navy during World War I, after which he worked under the U. S. Railroad Administration at Atlanta. After holding positions with the Empire Cotton Oil Company and the American Cotton Oil Company, Mr. Rickerson went with the Atlantic Coast Line in 1924, at Wilmington,

H. T. Rickerson

N. C. Later during the same year he was employed by the Missouri Pacific at New Orleans, La. Remaining in New Orleans, Mr. Rickerson joined the New York Central in 1925 and subsequently served that road at Toledo, Ohio, Detroit, Mich., and Cleveland.

E. L. Billingsley, assistant general freight agent of the Texas & Pacific at Dallas, Tex., has been advanced to general freight agent, with the same headquarters, succeeding **Carl Schonfelder, Jr.,** whose recent promotion to freight traffic manager was reported in the *Railway Age* of November 17. **V. B. Gilman** has been appointed general freight agent at Dallas. **Frank Wilson** has been appointed assistant general freight agent, also at Dallas. **W. W. Fair,** assistant general passenger agent at Dallas, has been promoted to general passenger agent, with the same headquarters, succeeding **Frank Jensen,** whose recent

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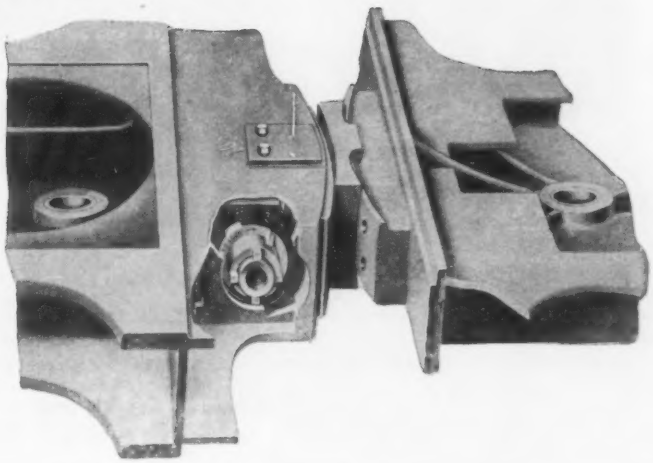

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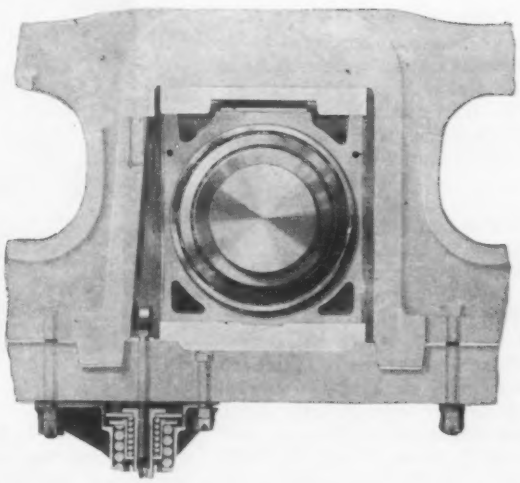

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promotion to passenger traffic manager was reported in the *Railway Age* of November 17.

T. L. Hirshman, whose promotion to general freight agent of the Missouri-Kansas-Texas, with headquarters at St. Louis, Mo., was reported in the *Railway Age* of November 10, was born at Moberly, Mo., in February, 1893, and entered railroad service in 1907 in the general freight office of the St. Louis Southwestern at St. Louis, subsequently becoming traveling freight agent at New York, and assistant general

T. L. Hirshman

freight agent at Little Rock, Ark., and St. Louis. In 1931 Mr. Hirshman became traffic manager of the Chicago & Illinois Valley, holding this position until August, 1933, when he entered the service of the Missouri-Kansas-Texas as assistant general freight agent, with headquarters at St. Louis, which position he held at the time of his recent promotion.

L. M. Schukei has been appointed general agent of the Erie, with headquarters at Dallas, Tex., succeeding **E. W. Keiley,** who has been appointed division freight agent at Elmira, N. Y.

Jack C. Cook, recently returned from military service, has been appointed to his former position as district freight agent of the Illinois Central at Miami, Fla., succeeding **James E. Gardner,** whose promotion to general agent, coal traffic department, was announced in the November 10 issue of *Railway Age.*

J. C. Tinsley, assistant agent of the Missouri Pacific at Little Rock, Ark., has been promoted to general agent with headquarters at Cape Girardeau, Mo., succeeding **L. A. Hoffman,** who has been transferred to Little Rock, where he replaces **J. E. Greutter,** who has retired. **Richard T. Williams,** chief clerk to the general freight and passenger agent at Little Rock, has been promoted to industrial agent, with headquarters at St. Louis, Mo. **B. E. Williams,** formerly traffic representative at Chicago, who has been on leave of absence to serve with the armed forces, has been advanced to general agent at San Antonio, Tex., succeeding **A. J. Batliner,** whose promotion to assistant general freight agent at Lake Charles, La., was reported in the *Railway Age* of September 22.

H. D. Sweetin, whose promotion to traffic manager of the St. Louis-San Francisco, with headquarters at Tulsa, Okla., was reported in the *Railway Age* of November 24, was born at St. Louis, Mo., on December 2, 1899. He entered railroad service on November 23, 1919, with the Frisco, holding various minor positions until September, 1936, when he was promoted to traffic freight and passenger agent at Pensacola, Fla., being appointed in March, 1937, chief clerk to the traffic manager at Memphis, Tenn. In January, 1938, Mr. Sweetin became traffic representative at Little Rock, Ark., and in June, 1940, he was advanced to general agent, with headquarters at Atlanta, Ga., the position he held at the time of his recent promotion.

Peter P. Belitz, whose appointment as coal traffic manager of the New York Central at Cleveland, Ohio, was announced in the November 3 issue of *Railway Age,* was born in Omaha, Neb., on August 18, 1894, and entered railroading there in 1912 as a stenographer-clerk for the New York Central. In 1914, he was promoted to soliciting freight agent and in 1915 to traveling freight agent. Mr. Belitz entered military service in 1919, returning to the New York Central in 1922 as traveling freight agent at Seattle, Wash. In 1929, he was advanced to general agent poultry department at Chicago; then, in 1931 to division freight agent at Kanakee, Ill. He became general coal and ore agent at Cleveland in January, 1932, and coal and ore agent there in August, 1932. Mr. Belitz was promoted to assistant coal traffic manager at Chicago in 1939, and maintained this post until November 1 when he became coal traffic manager at Cleveland.

I. T. Marine, whose appointment as freight traffic manager of the Pennsylvania at Philadelphia, Pa., was announced in the November 24 issue of *Railway Age,* was born on June 15, 1898, at Philadelphia. He entered railroading at Morrisville, Pa., in

I. T. Marine

1914 as a clerk in the freight agent's office of the Pennsylvania, and transferred to the accounting department at Newark, N. J., in 1918. Mr. Marine enlisted in the United States Marine Corps in 1918, was honorably discharged in 1919, and returned to his former position. He was appointed freight representative in 1921, at New York, and assistant foreign freight agent there in 1931. He became chief clerk to the division freight agent, Harrisburg, Pa., in April, 1934, and returned to New York as chief clerk to the division freight agent in December, 1934. Mr. Marine was advanced to division freight agent at Cincinnati, Ohio, in 1936, and transferred to Youngstown, Ohio, in 1938. In October, 1938, he became general western freight agent at Chicago, and in 1940, general freight agent there. In May, 1943, he was promoted to western freight traffic manager at Chicago, and maintained this post until the time of his recent advancement.

William M. Cook, whose promotion to western traffic manager of the Missouri Pacific, with headquarters at San Francisco, Cal., was reported in the *Railway Age* of November 17, was born at Columbus, Ky., on March 25, 1876. He entered railroad service on January 1, 1909, as chief claim clerk of the Spokane, Portland & Seattle at Portland, Ore., subsequently holding several minor positions with the S. P. & S., and, from December 1, 1910, to December 31, 1915, with the Western Pacific at San Francisco. On January 1, 1916, he joined the Missouri Pacific as general agent at Portland, and on May 1, 1918, he became traffic representative, operating department, at St. Louis, Mo., and later manager of foreign freight traffic and assistant general freight agent, also at St. Louis. On March 1, 1920, Mr. Cook was promoted to general agent at San Francisco, and served in this capacity until February 1, 1935, when he was advanced to assistant traffic manager, with the same headquarters, the position he held at the time of his recent promotion.

E. S. Neilson, whose retirement as freight traffic manager of the Pennsylvania at Philadelphia, Pa., was announced in the November 24 issue of *Railway Age,* was born on July 22, 1887, at Warrenton, Va. He began his railway career in 1904 as a junior clerk for the Pennsylvania. In 1905 he was promoted to stenographer in the overcharge department and in 1906 transferred to the division freight agent's office at Philadelphia, where he served consecutively as tariff clerk, local rate clerk, chief rate clerk, and tariff inspector. He was promoted to freight solicitor at New Haven, Conn., in 1909, and subsequently served in that capacity at Easton, Pa., Rochester, N. Y., Reading, Pa., Harrisburg, Pa., and Pittsburgh, Pa. In 1916, Mr. Neilson became division freight agent at Altoona, Pa., then transferred to Erie, Pa. He served with the United States Railroad Administration in the office of the regional director at Philadelphia in 1919, returning to the Pennsylvania in December, 1919, as division freight and passenger agent. He was appointed foreign freight agent at Philadelphia in August, 1925, and general foreign freight agent in November of that year. He was advanced to freight traffic manager at Philadelphia in 1929.

ENGINEERING & SIGNALING

Edward A. Dougherty, whose promotion to chief engineer of the New York Central, Lines West of Buffalo, with headquarters in Chicago, was reported in the *Railway Age* of November 24, entered the service of the New York Central as a chain-

News Department continued on next left-hand page

FUEL-THRIFTY LOCOMOTIVES

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The heavier the load a locomotive has to haul, the greater becomes the fuel saving from maintaining a complete brick arch in the firebox.

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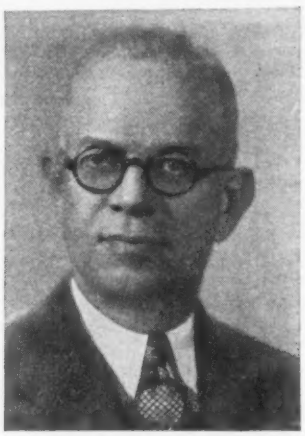
man in the engineering department on June 15, 1906, and worked during the summer vacations of 1906-1909 while attending the School of Mines, Columbia University, from which he was graduated as a civil engineer in 1910. From 1910 to 1917 he served in the engineering department in various positions from chainman to assistant engineer and during this period worked on the electrification of the New York Central between Mott Haven, N. Y., and Croton-on-Hudson, N. Y., and also on third and fourth tracking at various points. From 1917 to 1919 Mr. Dougherty served in the valuation department as assistant engineer, from 1919 to 1923 as assistant engineer in the office of the corporate chief engineer and assistant to the president, and from 1923 to February 1, 1926, in the office of the assistant vice-president and vice-president of operation. On February 1, 1927, he was appointed designing engineer in the office of the chief engineer of the Lines East of Buffalo, which position he held until May 1, 1935, when he was appointed assistant chief engineer there. In 1938 he was promoted to assistant to the vice-president, and on April 1, 1943, he was advanced to assistant general manager, Lines West of Buffalo, with headquarters at Cleveland, Ohio, the position he held at the time of his new appointment.

Frank J. Jerome, whose promotion to engineering assistant to the executive vice-president of the New York Central, with headquarters at New York, was reported in the *Railway Age* of November 24, was born at Painesville, Ohio, on May 26, 1890, and graduated from Williams College in 1911, and from the Massachusetts Institute of Technology in 1914. He entered railway service with the New York Central on July 6, 1914, as a transitman at Elyria, Ohio, and in March of the following year he was transferred to Toledo, Ohio. In 1917 he was



Frank J. Jerome

appointed assistant engineer at Chicago, and on August 20, 1923, he was promoted to trainmaster at that point. Mr. Jerome was appointed division engineer, with headquarters at Chicago, on November 1, 1927, and in April, 1938, he was promoted to engineer maintenance of way of the Michigan Central, with headquarters at Detroit, Mich. On October 1, 1939, he was advanced to assistant chief engineer of the New York Central system, (including the Michigan Central) with headquarters at Chicago. One year later his jurisdiction was extended to include the Big Four and the Peoria & Eastern (also controlled by the N. Y. C.). In April, 1943, he was promoted to chief engineer, the position he held at the time of his new appointment.

William H. Penfield, whose retirement as chief engineer of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Chicago, was reported in the *Railway Age* of November 24, was born at Foxburg, Pa., on January 12, 1874, and entered rail-

William H. Penfield

road service in January, 1894, in the engineering department of the Buffalo, Rochester & Pittsburgh (now part of the Baltimore & Ohio). From August, 1899, to March, 1903, he was construction and location engineer of the Milwaukee, and from March, 1903, to December, 1905, he served as locating engineer with the Western Pacific. Since 1905 he has served continuously with the Milwaukee. In December, 1905, he became construction engineer, and six years later he was advanced to assistant chief engineer. In February, 1913, Mr. Penfield was promoted to engineer maintenance of way and served in this capacity until May, 1935, when he was further advanced to the position he held at the time of his retirement.

W. Chunn, telephone engineer of the Missouri Pacific at St. Louis, Mo., has been promoted to assistant superintendent of telegraph, with the same headquarters. **L. E. Verbarg** has been appointed telephone engineer at St. Louis, succeeding Mr. Chunn.

SPECIAL

Frank B. J. Darr, Jr., has been appointed public relations representative of the St. Louis-San Francisco, with headquarters at St. Louis, Mo.

Joseph T. Sullivan, head of the Associated Press Bureau in the State House at Trenton, N. J., has been appointed director of information of the Central of New Jersey, succeeding **Raymond T. Blosser,** who has resigned to join the staff of Verne Burnett, public relations counsel at New York.

MECHANICAL

J. L. Santerre, road foreman of engines for the Canadian National at Rivière à Pierre, Que., has been appointed master mechanic at Levis, Que., succeeding **J. F. Oshmera,** transferred.

Leigh Budwell, assistant to superintendent motive power of the Richmond, Fredericksburg & Potomac at Richmond, Va., has been elected chief mechanical officer by the board of directors, succeeding **H. J. Warthen,** superintendent motive power, who has retired after more than 41 years' service.

William J. Crabbs, whose appointment as mechanical engineer for the Atlantic Coast Line at Wilmington, N. C., was announced in the November 17 issue of *Railway Age,* was born on September 5, 1912, at Hagerstown, Md. He was graduated from Virginia Polytechnic Institute in 1934 as a bachelor of science in mechanical engineering. Mr. Crabbs entered railroading in June, 1927, as a special apprentice for the Western Maryland, working in this capacity during the school vacation periods from 1927 to 1934. After graduation from college, he joined the American Locomotive Company at Schenectady, N. Y., as special apprentice, returning to the Western Maryland as draftsman in 1935. He was advanced to chief draftsman in 1938 and to mechanical engineer in 1940. Mr. Crabbs entered the United States Army in 1940 as a captain of the First Military Railway Service under Brigadier General Carl R. Gray, Jr., and was appointed to major in Feb-

William J. Crabbs

ruary, 1943, maintaining this rank until the time of his discharge in October, 1945. Mr. Crabbs' appointment as mechanical engineer for the Atlantic Coast Line became effective on October 15, 1945.

OBITUARY

G. A. Haskins, engineer maintenance of way of the Akron, Canton & Youngstown at Akron, Ohio, died there on October 22.

Ewald F. Bargman, who retired in 1928 as an architect of the Illinois Central, with headquarters at Chicago, died at his home in that city on November 23.

Walter A. Kraft, supervisor of freight transportation of the Baltimore & Ohio at Baltimore, Md., died there on November 23, after having served 48 years with the Baltimore & Ohio.

Robert E. McAndrew, general storekeeper of the Bessemer & Lake Erie at Greenville, Pa., died there on November 21, after 50 years with the railroad.

F. M. Johnston, vice-president, treasurer, and auditor of the Ft. Dodge, Des Moines & Southern, with headquarters at Boone, Iowa, died in that city recently.

Table of Operating Revenues and Expenses appears on next left-hand page

U.S.S. MISSOURI

The mighty "MO" of 45,000 tons, is back in home waters with a brilliant war record and the added distinction of having been the site of the formal surrender by the Japanese Government.

In common with other large and important ships of our navy . . . steam power is used.

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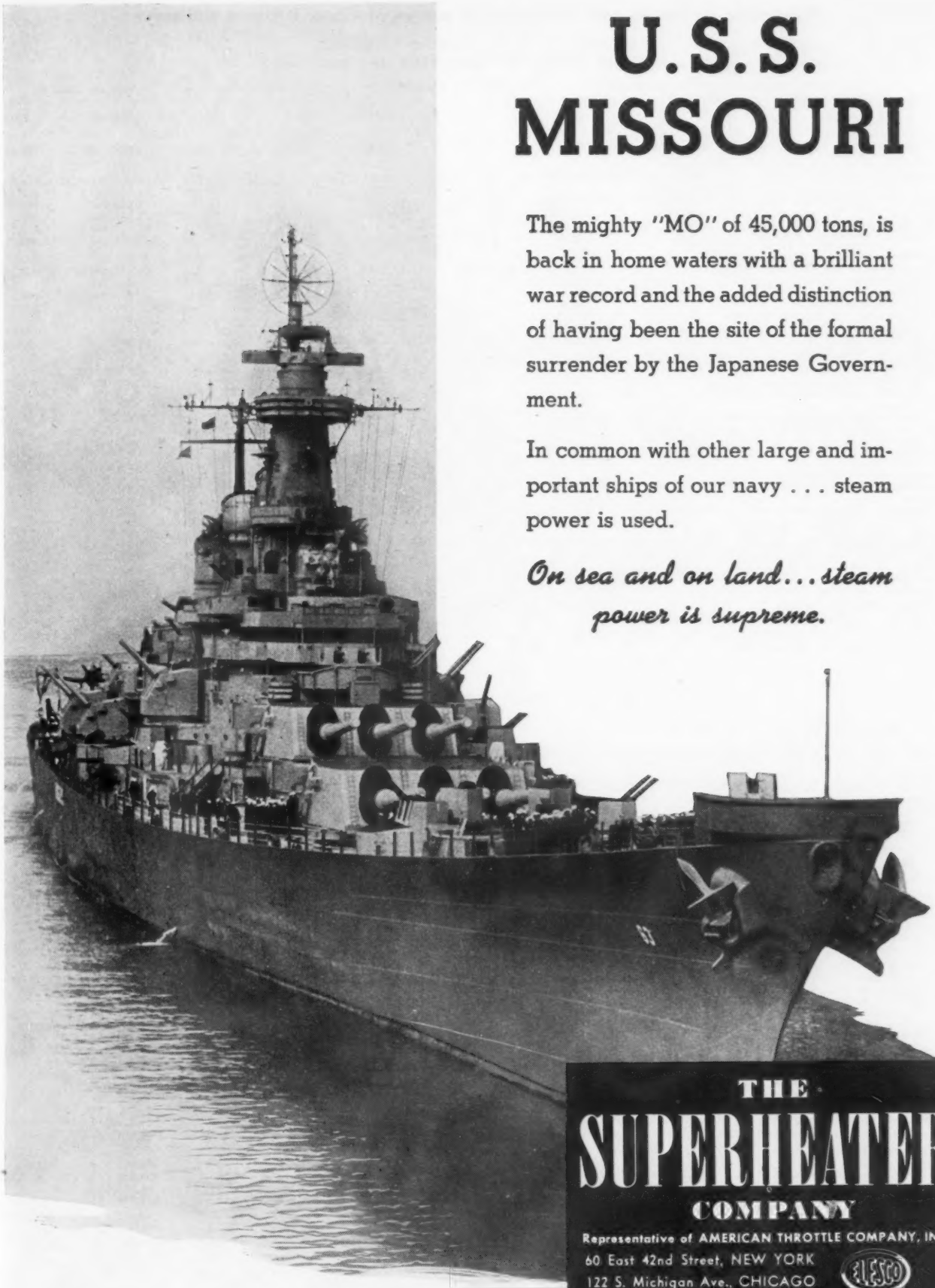

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Operating Revenues and Operating Expenses of Class I Steam Railways

(Switching and Terminal Companies Not Included)

FOR THE MONTH OF SEPTEMBER, 1945 AND 1944

Item	United States		Eastern District		Southern District		Western District	
	1945	1944	1945	1944	1945	1944	1945	1944
Miles of road operated at close of month	228,494	228,615	55,999	56,064	43,333	43,352	129,162	129,199
Revenues:								
Freight	$488,612,491	$591,103,907	$177,563,579	$218,694,465	$85,977,965	$107,472,941	$225,070,947	$264,936,501
Passenger	140,145,500	152,970,816	56,147,465	63,905,793	25,469,066	29,196,229	58,528,969	59,868,794
Mail	10,354,852	10,408,040	3,576,272	3,589,682	1,708,517	1,853,281	5,070,063	4,965,077
Express	7,645,692	11,267,757	1,514,987	3,631,632	1,103,353	1,538,784	5,027,352	6,097,341
All other operating revenues	32,419,200	33,478,462	13,521,274	14,340,588	4,500,084	4,724,345	14,397,842	14,413,529
Railway operating revenues	679,177,735	799,228,982	252,323,577	304,162,160	118,758,985	144,785,580	308,095,173	350,281,242
Expenses:								
Maintenance of way and structures	129,397,252	110,404,690	39,819,386	42,172,256	20,641,163	19,402,273	68,936,703	48,830,161
Depreciation	9,850,815	9,252,430	4,305,259	4,224,054	1,605,310	1,453,788	3,940,246	3,574,588
Retirements	1,417,698	1,323,343	329,539	368,875	234,063	249,931	854,096	704,537
Deferred maintenance	*208,775	*300,831	52,152	*23,407	.....	.....	*260,927	*277,424
Amortization of defense projects	22,209,031	1,761,259	724,984	598,545	1,296,283	309,985	20,187,764	852,729
Equalization	*1,208,347	*821,631	*613,314	*1,531,571	81,281	934,239	*676,314	*224,299
All other	97,336,830	99,190,120	35,020,766	38,535,760	17,424,226	16,454,330	44,891,838	44,200,030
Maintenance of equipment	216,023,370	131,786,284	54,448,776	54,704,392	28,793,224	25,043,074	132,781,370	52,038,818
Depreciation	18,084,147	17,963,149	7,652,526	7,563,127	3,611,815	3,602,834	6,819,806	6,797,188
Retirements	*4,178	*5,834	2,848	3,279	*2,650	*2,300	*4,376	*6,813
Deferred maintenance and major repairs	*246,932	*29,555	*1,720	655	.....	.....	*245,212	*30,210
Amortization of defense projects	100,983,053	14,856,321	6,143,067	4,890,692	7,254,641	3,715,733	87,585,345	6,249,896
Equalization	*27,088	19,258	*4,932	*35,360	*30,128	26,061	7,972	28,557
All other	97,234,368	98,982,945	40,656,987	42,281,999	17,959,546	17,700,746	38,617,835	39,000,200
Traffic	11,855,069	10,838,591	4,186,812	4,088,670	2,217,334	2,095,678	5,450,923	4,654,243
Transportation—Rail line	236,379,762	241,719,692	100,529,875	105,860,189	39,602,557	40,803,004	96,247,330	95,056,499
Transportation—Water line	.....	120	.....	.....	.....	.....	.....	120
Miscellaneous operations	10,311,892	9,854,861	3,770,993	3,550,261	1,558,095	1,592,316	4,982,804	4,712,284
General	17,225,988	16,659,809	7,141,120	6,842,345	3,441,069	3,236,322	6,643,799	6,581,142
Railway operating expenses‡	621,193,333	521,264,047	209,896,962	217,218,113	96,253,442	92,172,667	315,042,929	211,873,267
Net revenue from railway operations	57,984,402	277,964,935	42,426,615	86,944,047	22,505,543	52,612,913	*6,947,756	138,407,975
Railway tax accruals	904,655	168,465,004	14,285,046	51,867,102	11,648,226	34,498,759	*25,028,617	82,099,143
Pay-roll taxes	18,521,996	19,137,883	7,615,724	8,070,280	3,227,052	3,270,774	7,679,220	7,796,829
Federal income taxes†	*39,260,840	119,556,496	*2,108,773	27,895,324	3,867,119	26,372,020	*41,019,186	65,289,152
All other taxes	21,643,499	29,770,625	8,778,095	15,901,498	4,554,095	4,855,965	8,311,349	9,013,162
Railway operating income‡	57,079,747	109,499,931	28,141,569	35,076,945	10,857,317	18,114,154	18,080,861	56,308,832
Equipment rents—Dr. balance	9,657,006	13,339,405	2,905,168	4,992,335	*1,065,460	*53,886	7,817,298	8,400,956
Joint facility rent—Dr. balance	3,428,610	5,878,244	1,785,789	2,517,320	322,103	401,379	1,320,718	2,959,545
Net railway operating income	43,994,131	90,282,282	23,450,612	27,567,290	11,600,674	17,766,661	8,942,845	44,948,331
Ratio of expenses to revenues (per cent)	91.5	65.2	83.2	71.4	81.0	63.7	102.3	60.5

FOR NINE MONTHS ENDED WITH SEPTEMBER, 1945 AND 1944

Item								
Miles of road operated at close of month	228,524	228,725	56,006	56,094	43,333	43,376	129,185	129,255
Revenues:								
Freight	$5,176,553,127	$5,245,353,840	$1,898,734,425	$2,020,518,577	$966,606,136	$999,570,458	$2,311,212,566	$2,225,264,805
Passenger	1,263,185,856	1,357,236,119	518,714,604	549,972,538	239,821,692	267,599,302	504,649,560	539,664,279
Mail	94,173,159	91,715,139	32,017,539	30,894,316	16,370,203	17,031,390	45,785,417	43,789,433
Express	112,962,294	106,658,663	32,103,511	35,121,771	16,057,731	15,999,442	64,801,052	55,537,450
All other operating revenues	283,520,611	279,558,413	123,250,590	120,359,201	39,150,845	38,576,759	121,119,176	120,622,453
Railway operating revenues‡	6,930,395,047	7,080,522,174	2,604,820,669	2,756,866,403	1,278,006,607	1,338,777,351	3,047,567,771	2,984,878,420
Expenses:								
Maintenance of way and structures	989,717,129	939,320,898	349,945,368	355,631,817	174,037,729	162,140,951	465,734,032	421,548,130
Depreciation	87,949,059	79,847,529	38,482,868	34,724,362	14,097,181	13,078,860	35,369,010	32,044,307
Retirements	8,568,712	11,309,674	1,619,149	3,709,337	1,260,911	1,377,079	5,688,652	6,223,258
Deferred maintenance	*2,677,231	*4,225,600	*646,594	*667,487	.....	.....	*2,030,637	*3,558,113
Amortization of defense projects	39,403,400	13,974,695	5,948,937	4,534,956	4,303,075	2,505,711	29,151,388	6,934,028
Equalization	12,353,373	7,043,375	4,229,314	377,366	5,602,525	3,841,479	2,521,534	2,824,530
All other	844,119,816	831,371,225	300,311,694	312,953,283	148,774,037	141,337,822	395,034,085	377,080,120
Maintenance of equipment	1,317,978,493	1,185,025,569	501,704,477	497,181,538	239,254,424	222,247,374	577,019,592	465,596,657
Depreciation	161,645,268	160,375,289	68,222,591	67,634,495	32,319,182	32,167,040	61,103,495	60,573,754
Retirements	*65,523	*15,163	*68,000	3,872	*59,729	*10,705	62,206	*8,330
Deferred maintenance and major repairs	*1,317,965	*1,105,083	*36,001	14,127	.....	.....	*1,281,964	*1,119,210
Amortization of defense projects	241,878,922	123,612,681	53,411,861	40,858,238	41,318,169	31,804,320	147,148,892	50,950,123
Equalization	101,891	94,396	*22,300	22,567	*36,822	22,113	161,013	49,716
All other	915,735,900	902,063,449	380,196,326	388,648,239	165,713,624	158,264,606	369,825,950	355,150,604
Traffic	106,511,537	100,576,363	38,070,671	36,285,406	20,020,756	18,173,503	48,420,110	46,117,454
Transportation—Rail line	2,254,736,546	2,198,993,127	989,818,886	978,557,210	379,841,138	372,288,413	885,076,522	848,147,504
Transportation—Water line	1,219	5,025	.....	.....	.....	.....	1,219	5,025
Miscellaneous operations	89,272,542	88,965,093	32,602,762	31,639,599	13,844,056	14,547,321	42,825,724	42,778,173
General	155,002,193	149,701,427	62,842,206	60,402,821	30,097,870	28,827,122	62,062,117	60,471,484
Railway operating expenses	4,913,219,659	4,662,587,502	1,974,984,370	1,959,698,391	857,095,973	818,224,684	2,081,139,316	1,884,664,427
Net revenue from railway operations	2,017,175,388	2,417,934,672	629,836,299	797,168,012	420,910,634	520,552,667	966,428,455	1,100,213,993
Railway tax accruals	1,113,317,603	1,423,159,616	292,544,697	423,836,087	260,061,637	332,403,573	560,711,269	666,919,956
Pay-roll taxes	174,473,432	173,329,792	72,381,148	73,078,817	30,181,428	30,131,185	71,910,856	70,119,790
Federal income taxes†	707,108,098	1,017,679,260	117,931,673	248,653,945	185,326,631	256,578,091	403,849,794	512,447,224
All other taxes	231,736,073	232,150,564	102,231,876	102,103,325	44,553,578	45,694,297	84,950,619	84,352,942
Railway operating income	903,857,785	994,775,056	337,291,602	373,331,925	160,848,997	188,149,094	405,717,186	433,294,037
Equipment rents—Dr. balance	105,415,922	116,128,584	46,101,226	50,996,578	*1,640,958	4,956,857	60,955,654	60,175,149
Joint facility rent—Dr. balance	31,533,827	34,707,783	15,826,861	16,393,474	3,488,378	3,811,608	12,218,588	14,502,701
Net railway operating income	766,908,036	843,938,689	275,363,515	305,941,873	159,001,577	179,380,629	332,542,944	358,616,187
Ratio of expenses to revenues (per cent)	70.9	65.9	75.8	71.1	67.1	61.1	68.3	63.1

* Decrease, deficit, or other reverse item.

† Includes income tax, surtax, and excess-profits tax.

§ A number of carriers included in their accounts for the month charges to operating expenses and credits to Federal income tax accruals as a result of the shortened period of amortization of defense projects. The amounts reported were as follows: Amortization of defense projects: $101,661,375; road $19,528,418; equipment, $82,132,957; Federal income tax credit, $77,560,128.

‡ Railway operating revenues are after deduction of $35,478,831 for the nine months ended with September 1945 and $34,518,766 for the nine months ended with September 1944 to create a reserve for land grant deductions in dispute.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

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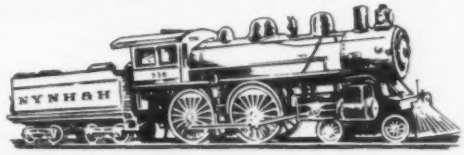
keep NEW HAVEN LOCOMOTIVES *at Peak Performance*

TODAY, as for more than 35 years, the I-5's and all other New Haven steam locomotives are kept performing efficiently and economically by the use of HUNT-SPILLER GUN IRON vital parts. Only because HSGI — a superior material to start with — has been constantly improved through the years; only because it has met each new and intensified demand of increased locomotive speed and power, have the New Haven and 75 other Class I roads used it for a generation or more. Such a record assures full satisfaction with the use of any parts listed below.



When the New Haven first began using HSGI parts, No. 538 was representative of locomotives which pulled crack trains between Boston and New York.

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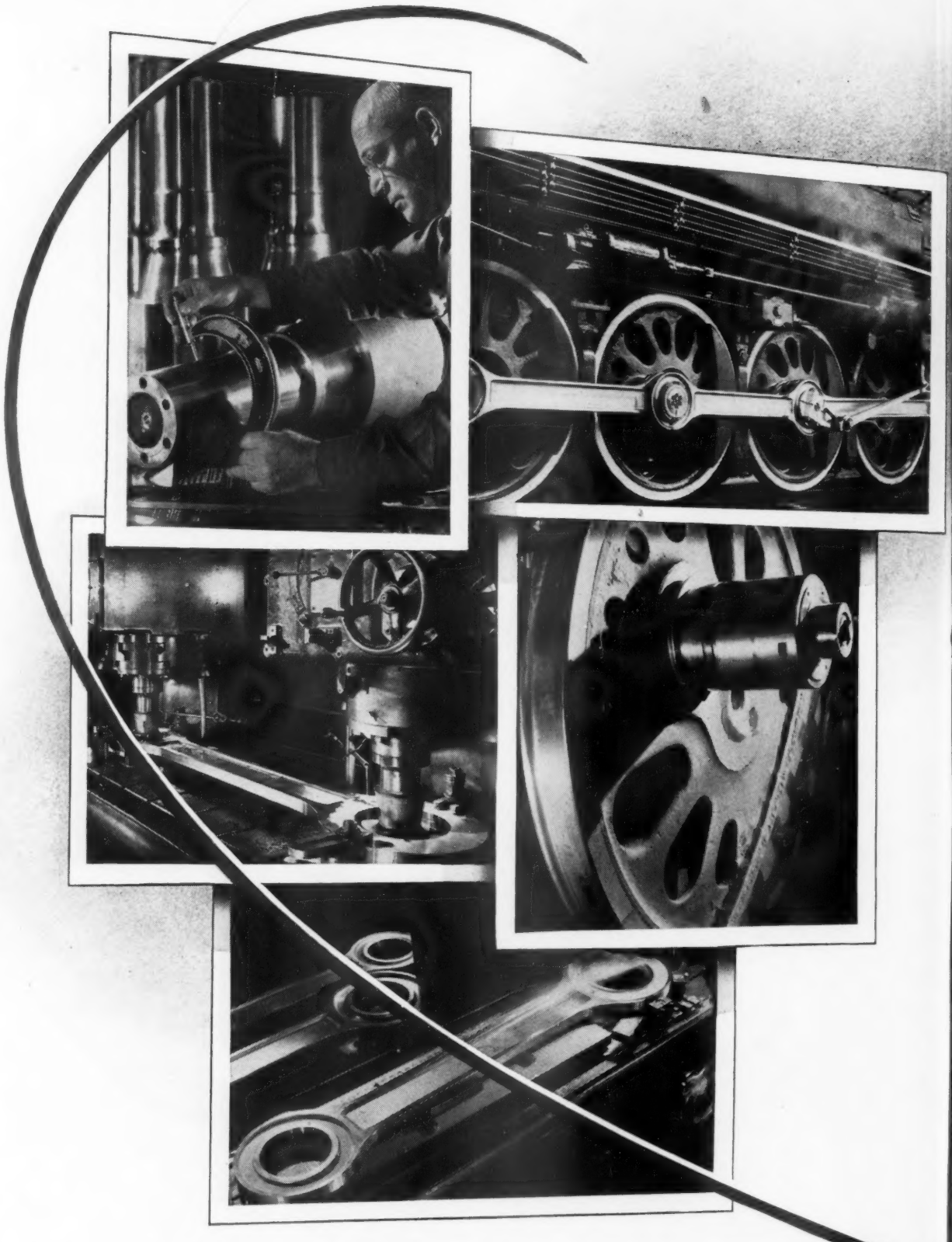
Valve Packing Rings	Light Weight Valves	Cylinder Snap Rings
Valve Bull Rings	Cylinder Liners and Pistons for Diesel Service	Valve Rings, All Shapes



ALCO Balanced Power Design Features in the "Niagara"

Salient features contributing basically to ALCO BALANCED POWER in the "Niagara" include:

ALCO forged rod and crank-pin assembly.
ALCO fabricated driving-box assembly.
ALCO tires and spring assembly.
ALCO-designed boiler.
ALCO-engineered tender.

Alco Forged Rod and Crank-Pin Assembly

A FEATURE OF

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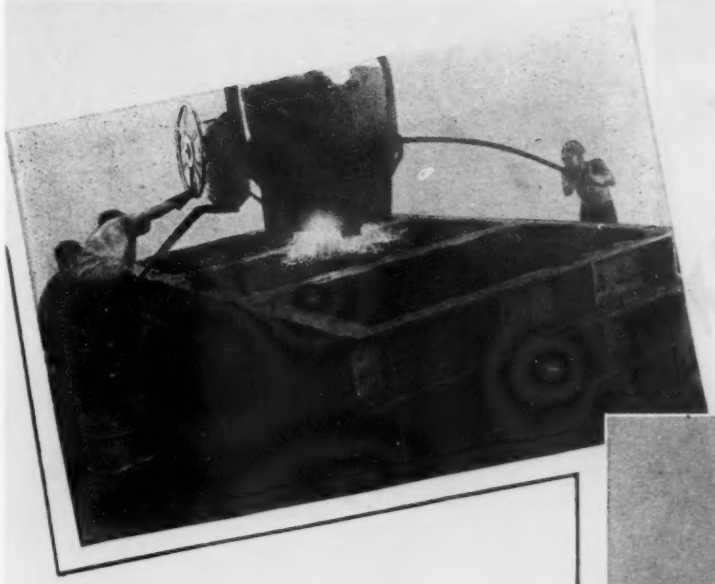

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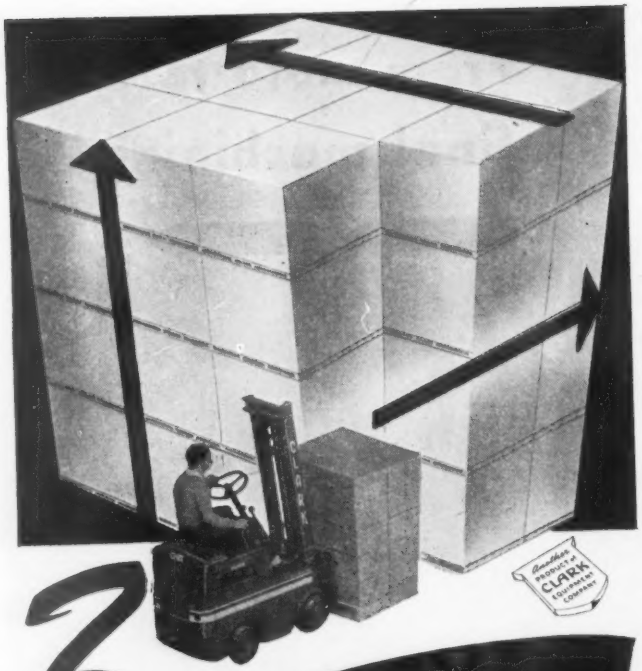

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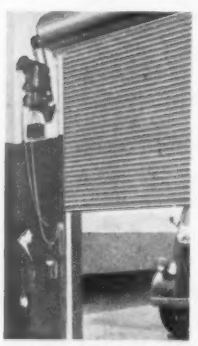

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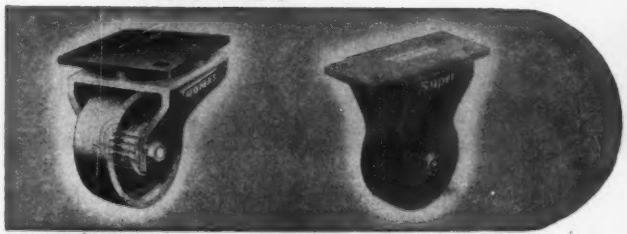

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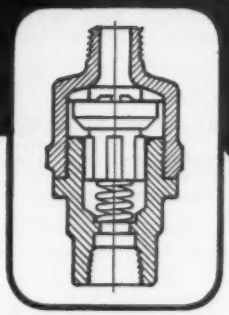

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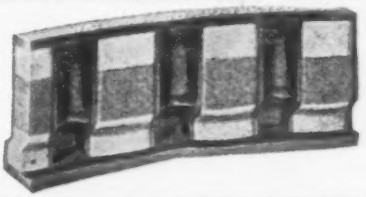

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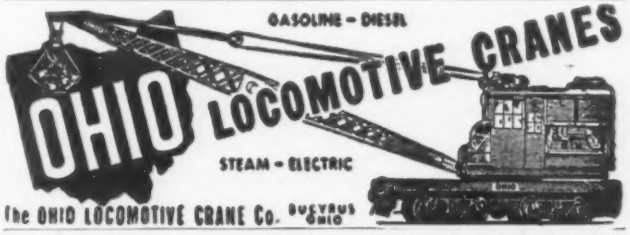

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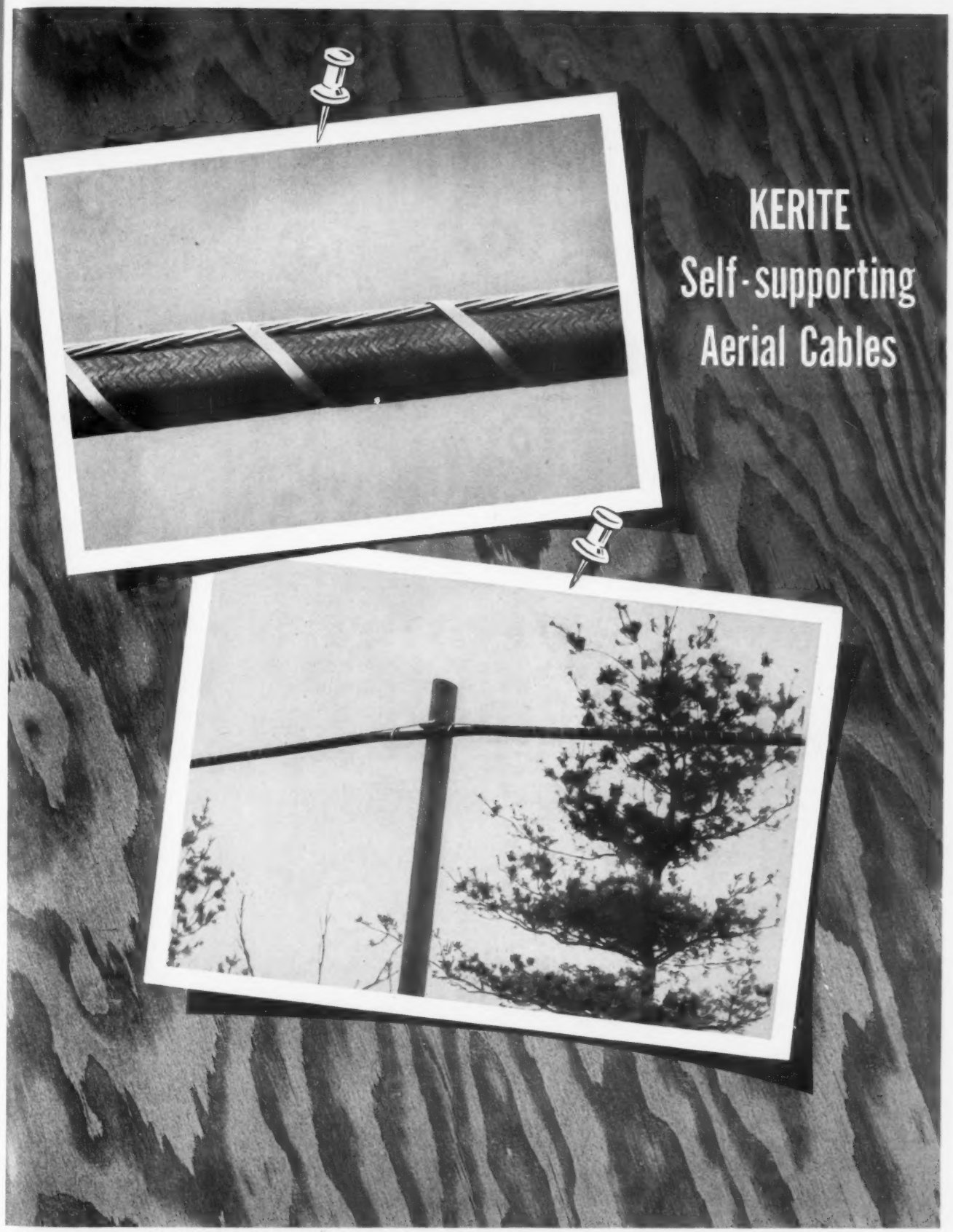

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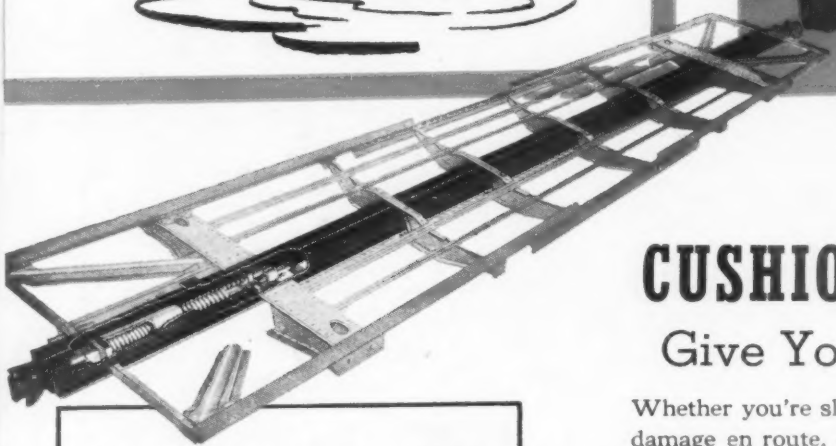

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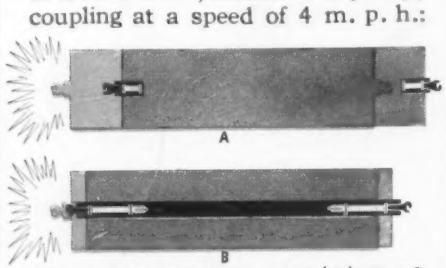

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